LIBRARY OF CONGRESS
RECEIVED
JUN 24 1901
PERIODICAL DIV.

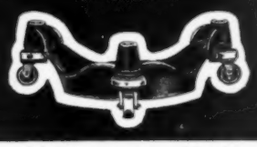
The
American Artisan
THE HARDWARE RECORD

Volume 41.—No. 25. CHICAGO, JUNE 22, 1901. $2.00 Per Year.

Trying—to—do—business—without—advertising—is—like—winking—at—a—girl—in—the—dark; you—know—what—you—are doing—but—nobody—else—does.

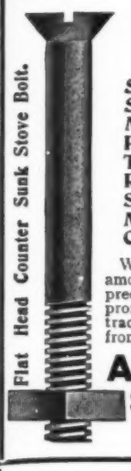
BRADLEY SHELF BRACKETS.
Strong, Light and All Right.
ATLAS MFG. CO., New Haven, Ct.

Lane Bros. Co.,
POUGHKEEPSIE, N. Y.



Here's a caster that is a
CASTER.
Fits any stove without adjustment; portable; get-at-able when sweeping under the stove; better than a truck.
For moving or use under stoves on sample floor, blacking room or warehouse. Easily moves the heaviest weight. Enables one man to move a stove. Plain or Roller Bearing.
You need this in your business.
Independent Register Co.,
CLEVELAND, O.

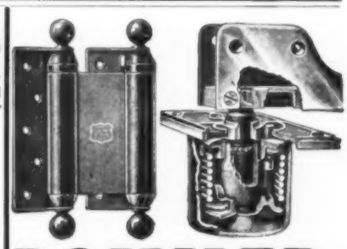
Our Facilities
are unsurpassed by any firm in the United States for the manufacture of



Stove Bolts,
Stove Rods,
Machine Screws,
Pointed Pins,
Threaded Wires,
Rivets,
Special Bolts,
Mica Bolts,
Cold Pressed Nuts.

We have a large *clientele* among stove men who appreciate our high quality, prompt deliveries and attractive prices. Let us hear from you.

Atlas Bolt & Screw Co.,
Cleveland, O.



BOMMER SPRING HINGES.
BOMMER BROS. BROOKLYN, N.Y.

FOR AMERICAN SEAL
Elastic Oil Roofing Cement
Stove Putty,
Asbestos Furnace Cement,
and paints for inside and outside use on any surface.
Wm. Connors Paint Mfg. Co.
WESTERN AGENTS
J. L. PERKINS & CO.,
241 Lake Street, - - - - CHICAGO, ILL.
STOCKHOFF SUPPLY CO., ST. LOUIS, MO.

This Space for Sale
Inquire of Owner
Daniel Stern, 69 Dearborn St.
CHICAGO.

Black Diamond Files and Rasps.
PERFECT—ALWAYS
Twelve Medals Awarded
At International Expositions.
G. & H. BARNETT CO.,
Black Diamond File Works. Philadelphia, Pa.

Columbus Bolt Works,
Columbus, O.

Bolts,
Nuts,
Washers,
Turn Buckles,
Bridge and Roof Rods
and
Bolts

ALL KINDS OF CARRIAGE FORGINGS. CATALOGUE ON APPLICATION.

THE "GLOBE" VENTILATOR,
In Brass, Copper, Galvanized Iron and with Glass Tops for Skylight purposes.
FOR PERFECTLY VENTILATING
Schools, Churches, Halls, Mills, Factories and Audience Rooms of Every Character.
SMOKY CHIMNEYS CURED.
"Globe Ventilated Ridging"
Send for Pamphlet.
Manufactured by
GLOBE VENTILATOR CO., TROY, N. Y.

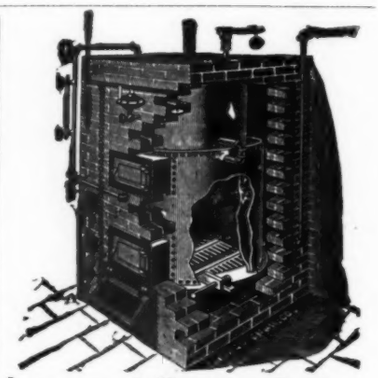
BOILERS AND RADIATORS

A Postal Card from you will bring valuable, complete information in regard to the best, most comprehensive, strictly modern line of these goods.

WRITE US TODAY.
New York, Boston, Philadelphia, St. Louis, Buffalo, Minneapolis, Denver, Detroit, London.

AMERICAN RADIATOR COMPANY

Lake and Dearborn Sts., CHICAGO.

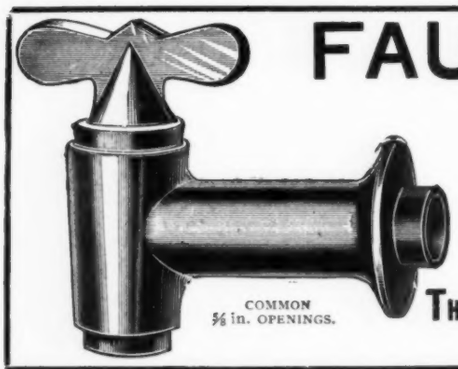


Improved Haxtun Boiler

For Steam and Hot Water Heating. Magazine Feed. For Soft and Hard Coal. 15 years' successful use.

Kewanee Boiler Company, Kewanee, Ill.

Chicago Store 167-169 East Lake St., Chicago.



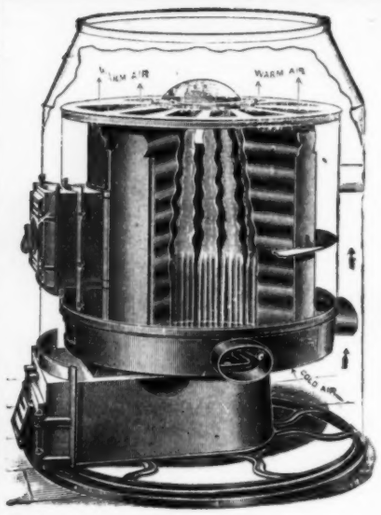
COMMON ⅝ in. OPENINGS.

FAUCETS.

Beer
Milk Can
Oil Can
Cream Separator,
of Various Sizes and Styles.

MFD. BY
THE CLARK NOVELTY CO.
ROCHESTER, N. Y.

G. G. Arbogast, Monterey, Va., writes: "I beg to take advantage of your kind offer of inserting a free want ad. in your journal. Am a regular subscriber to The American Artisan, and I can tell you, without an iota of flattery, that I find it indispensable."



The Kelsey Warm Air Generator

See Our Exhibit at the Pan-American Exposition.

WORLD'S COLUMBIAN EXPOSITION, Chicago, 1893.

AWARD WITH MEDALS—"For a new and original, and very efficient form of Warm Air Furnace, in which heavy cast iron sections, with corrugated sides, through which is circulated the fresh air, from the fire box and combustion chamber, and are exposed on all sides and throughout their length, to the fire and hot gases, thus exposing an exceptionally large surface to the fire."

"For the means whereby the warm air may be directed in separate and independent channels, and distributed in such proportions, as to ensure uniformity of heating in different parts of a building."

Kelsey Furnace Co.,
Makers,
Syracuse, N. Y.

Cook & Van Evera Co.,
38 and 40 E. Lake Street,
Western Selling Agents. CHICAGO, ILL.

James Smart Mfg. Co.,
BROCKVILLE, ONT.
Sole Manufacturer for Canada.

Anyone can follow, but few can lead. "QUICK MEAL" STEEL RANGES are always in the lead. They are not imitators. They are Original in Design, Original in Construction, and use only Original and Distinct Features of their own. Their left-hand Reservoir is a decided success, and to meet all requirements a right-hand Reservoir on the same principle has been added. A new Pouch Feed and a number of other changes have been made, which will give the dealer who sells "QUICK MEAL STEEL RANGES an assortment that will please all customers. Catalogue ready July 1st.

Ringen Stove Co.

ST. LOUIS.

BEST

is the word that accurately describes it.

White's Model Steel Cook.

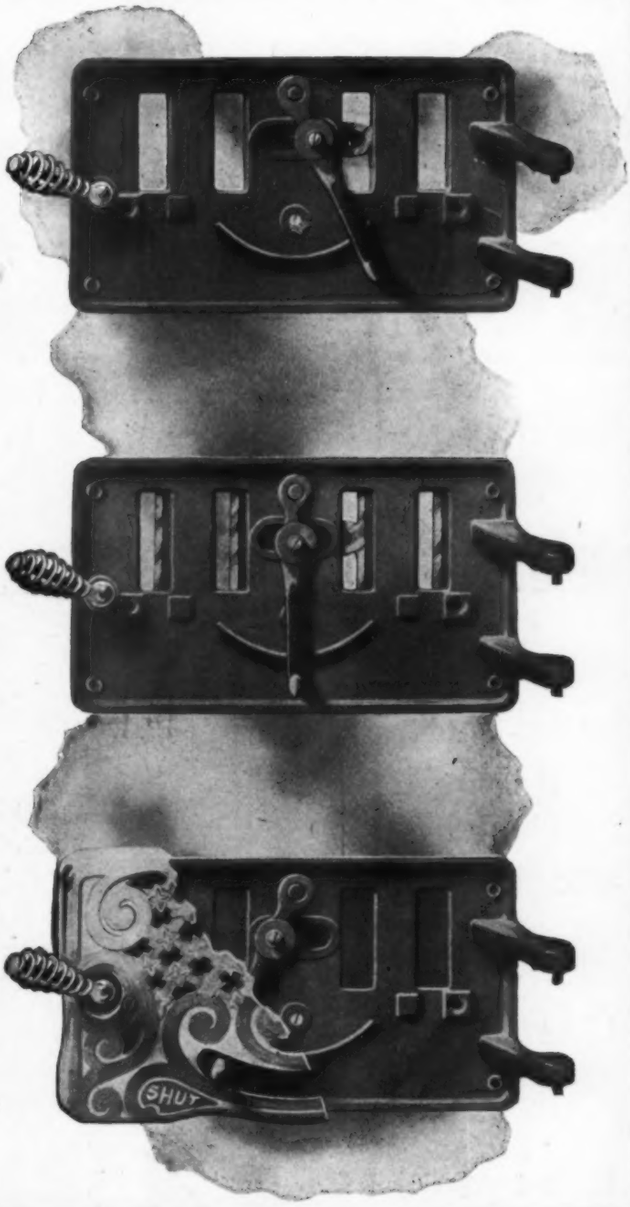
It stands without a peer. No other steel cook comes anywhere near it in excellence and the price is right. Write us for particulars.

Thos. White Stove Co.

Quincy, Ills.

Moore's Air-Tight Heater

The Air-Tightness of an Air-Tight Stove Consists in Its Being Air-Tight



The above simple fact is frequently lost sight of in the meaningless use of the word air-tight, loosely applied to many stoves regardless of the fit-ness of their joints. Much of the secret of the success of MOORE'S AIR-TIGHT HEATER lies in the perfection of the base door, all the joints being mechanically ground to within $\frac{1}{1000}$ of an inch of actual contact.

JOLIET STOVE WORKS

JOLIET, ILLINOIS

28

ANNOUNCEMENT!

TO THE TRADE:—

Our **STOVE CATALOGUE** for the Season of 1901-02 is now ready for distribution and will be mailed to our patrons within the next two weeks. If your name is not on our Mailing List, a postal card request will receive immediate attention. The additions to our line comprise the following:

NEW

Steel Ranges.

Steel Cooks.

Steel Oven Ranges.

Steel Oven Cooks.

Cast Coal Ranges.

Cast Coal Cooks.

NEW

Cast Wood Ranges.

Cast Wood Cooks.

Base Burners.

Surface Burners.

Oak Stoves.

HotBlasts.

Oak HotBlasts.

The Fuller-Warren Co.,

Milwaukee, Wis.

You Can Always Depend On It.

The "New Process" Vapor Stove.

It Lights Like Gas. No Smoke. No Delay.

"We have been using the 'New Process' for ten years and prefer it to any other." That's the verdict.

The improved "New Process" never fails to give satisfaction. Write us or order from any of the following jobbers:

F. M. BORDEN & BRO., Philadelphia, Pa.
W. B. BELKNAP & CO., Louisville, Ky.
HOLBROOK, MERRILL & STETSON. San Francisco, Cal.
F. TIEMANN STOVE & HARDWARE CO., St. Louis, Mo.
EUGENE MUNSELL & CO., New York City.
COOK & VAN EVERA CO., Chicago, Ill.
TOWNLEY METAL CO., Kansas City, Mo.
TOWNLEY STOVE CO., Terre Haute, Ind.
THE S. M. HOWES CO., Boston, Mass.
FARWELL, OZMUN, KIRK & CO., St. Paul, Minn.
F. A. KLAINE & CO., Cincinnati, O.
H. KOCH & SONS, Evansville, Ind.
MORLEY BROS., Saginaw, Mich.

The Standard Lighting Comp'ny

CLEVELAND, O.

Model Oak

Entirely New Line for 1901.

We use the old name, but the numbers are different.

The Round Air Tight Register is ground into its seat on the inside of the ash pit door and will remain at any degree of opening required to supply air for combustion through the opening.

The register construction is such that the **Grate Handle** can be pulled out through the register opening.

The Extension on Top of the Fire Pot extends up inside of the steel drum and is cast solid with the fire pot so it cannot twist and warp.

The Sectional Ring fits over the flange turned out on the bottom of the steel drum.

The Ash Pan fits tightly all around the edges of the ash pit.

The joints remain tight.
The price is just right.
Ask for more information.

The Portsmouth Stove & Range Co.

Portsmouth, O.

MORLEY BROS.,
Saginaw, Mich.,
Agents for Michigan and the Northwest.

MODEL OAK.

Van's

Pat. Improved Wrought Steel Portable

Range.

For HOTELS, RESTAURANTS, PUBLIC INSTITUTIONS, BOARDING HOUSES and PRIVATE FAMILIES.

All kinds of Hotel Implements for Culinary Purposes.

Manufactured and For Sale by

The John Van Range Co.,

419 Elm and 410, 412, 414 & 416 Home Streets,

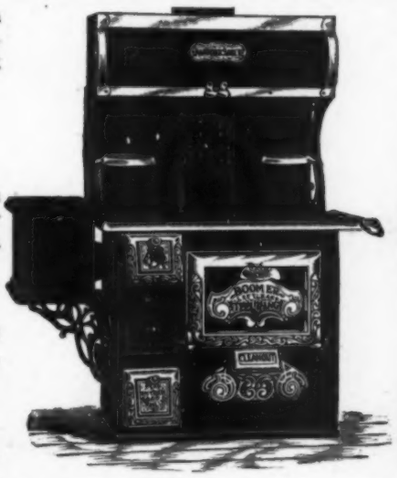
CINCINNATI, OHIO.

Boomer Furnace.

Regarding

Boomer Furnaces Or Boomer Steel Ranges

We want to state in strongest terms possible that if you want the **Heaviest, Most Durable, Most Economical** and easiest to take care of Furnace or Steel Range, buy a **BOOMER.**



Boomer Steel Range.

Neither time nor money is spared to make them the best. Buy Boomers and save your coal bills. We invite investigation.

The Hess-Snyder Co.

Manufacturers, MASSILLON, O.

Border Copyrighted

Forest Cinderella.

For Wood.

Contains many special features.

Here Are A Few of Them.

Heavy cast iron linings 16 inches high. Pipe Collar interchangeable with top and end. Sweat Damper to prevent creosote deposits. Screw draft register insures perfect control of the fire. Write for full description and prices if you are interested.

STOVES AND RANGES CINDERELLA NEVER FAIL

Pittsburgh Stove & Range Co.,

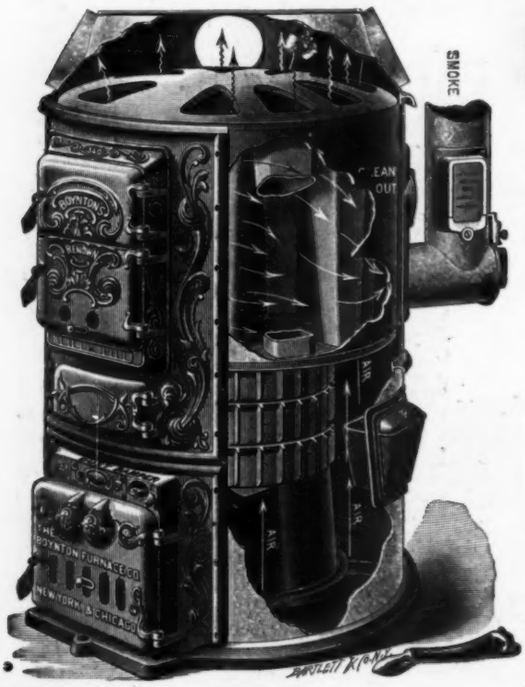
Pittsburgh, Pa.

STOVES AND RANGES CINDERELLA NEVER FAIL

WESTERN SALES AGENT **W. D. Sager, 38 to 40 Michigan St., Chicago, Ill.**

The making of heating apparatus—

Hot Water Heaters, Steam Heaters and Furnaces,



is our Specialty. In over fifty years of experience we have met with about every phase of the heating problem. The manufacture of economical and durable heating apparatus has been our constant aim, and our success has been fully demonstrated by our long continuance in this line.

REMEMBER, efficiency and durability are the sure tests of cheapness.

Catalogues, Price Lists and Discounts cheerfully furnished the trade.

The Boynton Furnace Co.,

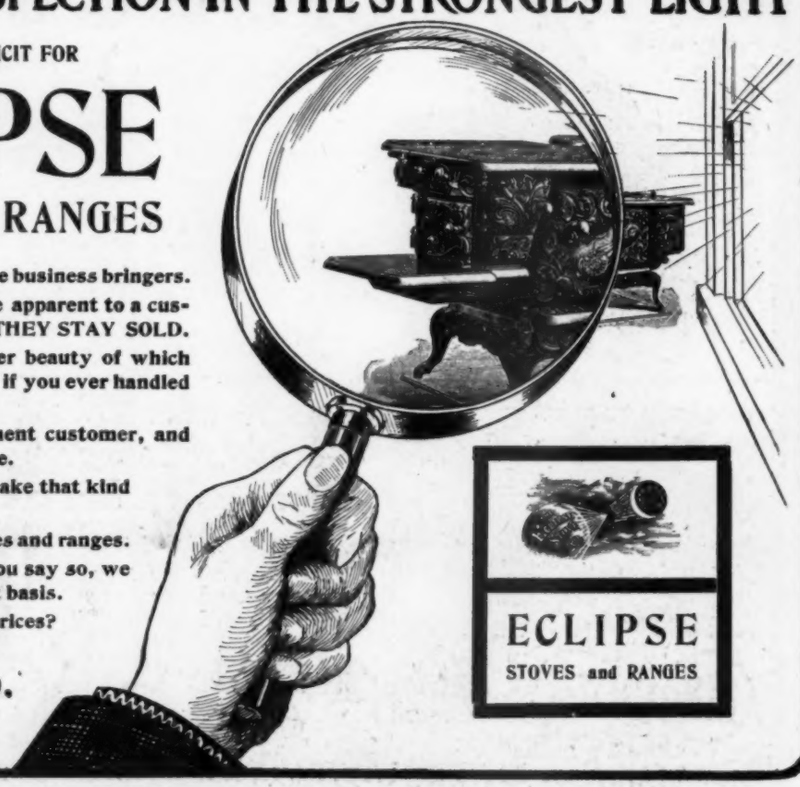
New York and Chicago.

A CRITICAL INSPECTION IN THE STRONGEST LIGHT

IS WHAT WE SOLICIT FOR

ECLIPSE

STOVES AND RANGES



They are built for business and are business bringers.

Their points of merit are at once apparent to a customer, sales are readily made, and THEY STAY SOLD.

This last is a point, the real inner beauty of which you will understand and appreciate, if you ever handled the other kind.

A satisfied customer is a permanent customer, and the best advertisement you can have.

Eclipse goods sold by you will make that kind of customers.

We know how to make good stoves and ranges.

You know how to sell them. If you say so, we can get together on a mutual benefit basis.

Shall we send our catalogue and prices?

The Eclipse Stove Co.

MANSFIELD, OHIO.

ENLIST

YOUR NAME ON OUR ROLL OF CUSTOMERS AND

Reap A Harvest

Such as is Sure to Come to Dealers who Handle the Celebrated

MUELLER

Furnaces AND Boilers.

WRITE FOR 1901 CATALOGUE AND PRICES.
GET OUR SPECIAL REGISTER OFFER.
ESTABLISHED 1857.

L. J. Mueller Furnace Co., 191 Reed St., Milwaukee, Wis.

BRAND STOVE CO.

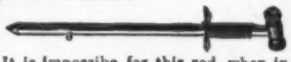
We make largest line of cooking and heating apparatus, cast cooks, cast ranges, steel cooks, steel ranges, hotel outfits, heating stoves, furnaces, hot water and steam heaters. Send for catalogs.

MILWAUKEE, WIS.

The YANKEE Hot Air DAMPER (Improved) All Steel.

Above All, Cheapness—a dealer cannot possibly make dampers as cheaply as we sell the Yankee. Easily put in and taken out of pipes. Stiffest, quickest working and neatest damper on the market.

ROD POINTS: Has wood enameled handle. Wood handle cannot come off. Washer and spring cannot fall off the rod. Same size of holes are punched on each side of pipe. Rod is made of ½-inch cold-rolled steel and slips into damper very smoothly. **Sample sent to any dealer without charge.**



It is impossibe for this rod, when in position, to move either way.

The S. M. HOWES CO., Manufacturers, 40-46 Union St., Boston, Mass.

NEW YORK: A. L. Canfield, 248-286 Pearl St. CHICAGO: Excelsior Steel Furnace Co.

Sizes: 6, 7, 8, 8½, 9, 10, 10½, 11, 12, 12½, 14, and 15.

SHEET METAL STAMPING TO ORDER.

Emperor Furnaces

For Wood

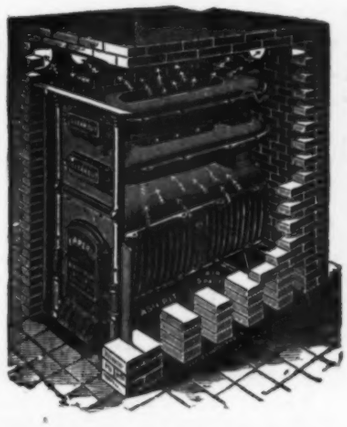
Simple. Safe. Durable.

The Best and Cheapest Line of Wood Furnaces.

Furnished for Either Brick or Galvanized Iron Casing. Send for Catalogue.

Bergstrom Bros Co.

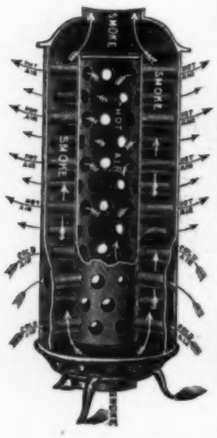
Neenah, Wis.



NICKEL PLATING OUTFITS.

ZUCKER & LEVETT & LOEB CO
OFFICES. 526. 528. & 530 W. 25TH ST.
NEW YORK. U.S.A.

SEND FOR CATALOGUE OF NICKEL & ELECTRO PLATING SUPPLIES & POLISHING MATERIALS



COUNT THE TUBES

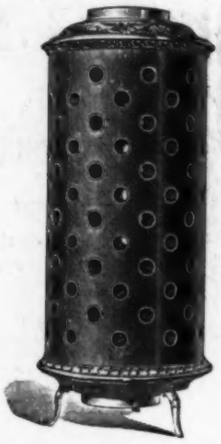
IN THE

Rochester Radiator

and you will comprehend the great radiating surface directly over the hot current where one square inch is better than six at the side.

Rochester Radiator Co.,

120 Furnace St., Rochester, N. Y.



No. 233.

Draft Register Screw

MANUFACTURED BY

The Fanner Manufacturing Co.

CLEVELAND, OHIO.

Registers and Ventilators.

A Full Line, Unique Designs

Quality and finish unexcelled. All styles of finish, from Japanned to Gold Plated.

Send for Catalogue.

The Philadelphia Hardware and Malleable Iron Works

Philadelphia, Pa.

Registers & Faces & Borders

Black Japanned, White Japanned, Hand Bronzed,	Nickel Plated, Brass Plated, Bronze Plated,	Copper Plated, Old Copper Finish.

Any size. We make **DISCOUNT 75 Per Cent** on any of above finishes.

1901 CATALOGUE

The most complete catalogue of registers ever printed. Send for one.

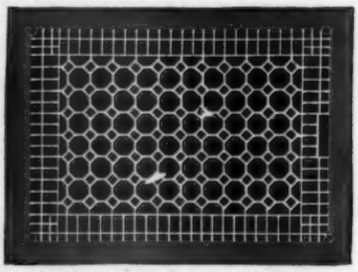
THE SCHREIBER & CONCHAR MFG. CO.

DUBUQUE, IA.

Henry & Scheible Co.

SUCCESSORS TO T. E. HENRY.

10 Long St. CLEVELAND, O.



ALL SIZES—ALL STYLES OF FINISH. PROMPT SHIPMENTS.

Quality and finish unexcelled.

SEND FOR CATALOGUE.

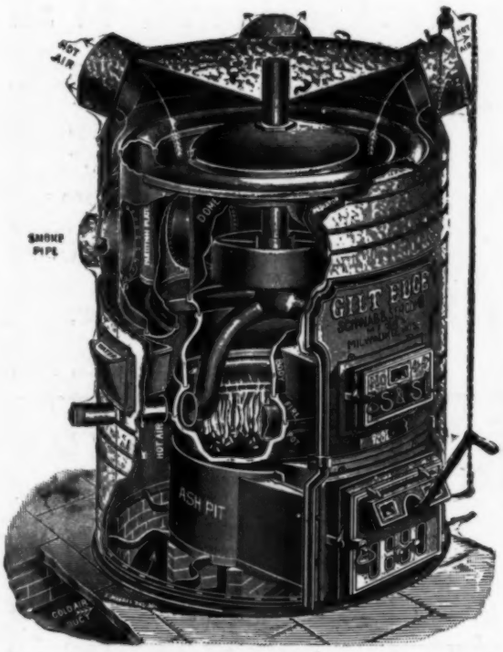
STAR STOVES AND RANGES
ENTERPRISE STOVE CO. VINCENNES, IND.
GUARANTEED

CATALOGUE SHOWING

Gas Ranges
Cast Cooks
Steel Ranges
Cast and
Cast Ranges
Steel Heaters
Steel Cooks
Hot Plates

WILL BE FURNISHED FOR THE ASKING BY

Enterprise Stove Co.
VINCENNES, IND.



We make the largest line of Warm Air and Combination Warm Air and Hot Water Heaters on the market. Also manufacture Registers and Tin and Galvanized Iron Furnace Fittings.

R. J. Schwab & Sons Co.,
281 Clinton Street,
Milwaukee, Wis.

E. E. DUNNING,
Manager Heating Department.

Monarch Air Blast Furnace

STOP! Now and write for our catalogue and price list. The Monarch Air Blast (all cast iron) will make you money and build for you a reputation in the Heating Business, it has done so for : : : : : : : : : **OTHERS.**

The Forest City Foundry & Mfg. Co.
Cleveland, Ohio.

JEWEL STOVES AND RANGES..

JEWEL STOVES AND RANGES
DETROIT STOVE WORKS
LARGEST STOVE PLANT IN THE WORLD

A Complete, Well Advertised Line;
Low Prices and Good Workmanship.

Please Write for Catalogue.

DETROIT STOVE WORKS.

Detroit - Chicago.

Many a Dealer Has Gone to the Wall

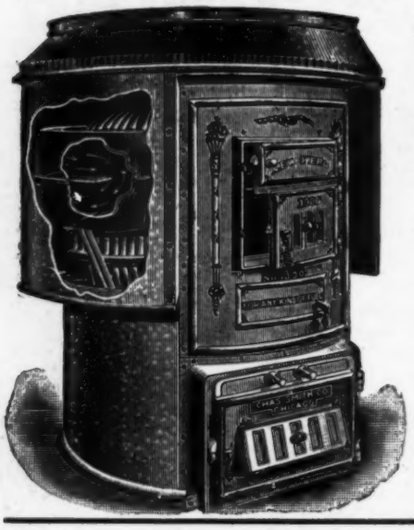
Trying to handle goods that are only made for a few—the "so-called high grade" kind. . . . . .

Willard Steel Ranges "ARE AS GOOD AS THE BEST."

Made to meet the demand of the masses. If you are not already selling them, write and see if you can't secure the agency. Want one dealer in every town in the U. S.

WM. G. WILLARD, Manufacturer,

619 and 621 N. 4th St. ST. LOUIS, MO.

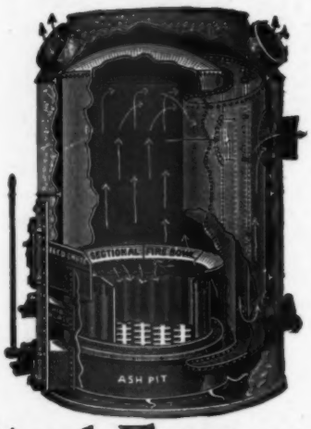


The New Hero Furnace.....

Is especially adapted for a combination of hot air and hot water. All Cast Iron, for Low Basements, Coal or Wood. Made in three sizes for large residences and public buildings.

The Chas. Smith Co.,
122 Lake St., CHICAGO.

The Lennox



Steel Furnace

Made By The **Lennox Machine Company,**
15 East Fredrick St., Marshalltown, Iowa.
Catalog Free.

N. Warschauer,

IMPORTER AND EXPORTER
COMMISSION MERCHANT,

49 Mariahilferstrasse, VIENNA, AUSTRIA.

Has Unequaled Facilities for the Distribution of American Specialties in Austria-Hungary and Southeastern Europe.

Heating and Ventilating Buildings.

By R. C. Carpenter.

Price, $3.00

For Sale by . . . .

Daniel Stern,
69 Dearborn St. CHICAGO.

Colby & Diehl,
MT. VERNON, S. D.,
write:

"We need The American Artisan in our Business."

The Tinsmiths' Pattern Manual

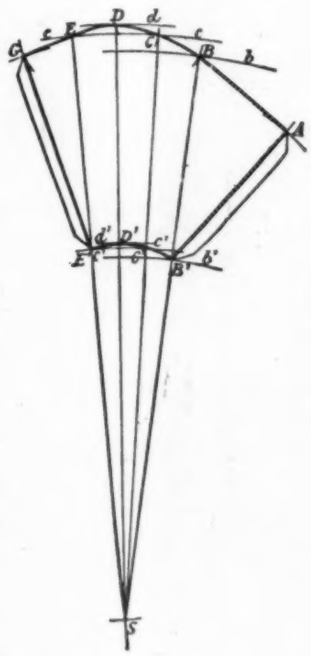
Is recognized as a standard authority on sheet metal work. A new revised and up-to-date edition of 248 pages, 8 x 5, containing over 100 illustrations, has been issued. A page from this book is shown herewith.

208 THE TINSMITHS' PATTERN MANUAL.

or S' *c* (which is equal to S E) and S' B successively as radii describe arcs cutting S' *d* in *e* and *f*. Draw *e* C, *f* F perpendicular to X X, and cutting it in C and F; also join C S, F S, cutting O'' D' in C' and F'.

Next draw S D (Fig. 79) equal to S D (Fig. 78), and with S as centre and S C, S F (Fig. 78) successively as radii

Fig. 79.



describe arcs *c* and *b*. With D as centre and radius equal to *d* E (Fig. 78) describe arcs cutting arc *c c* in E and C. With C as centre and radius *c* B (Fig. 78) describe an arc

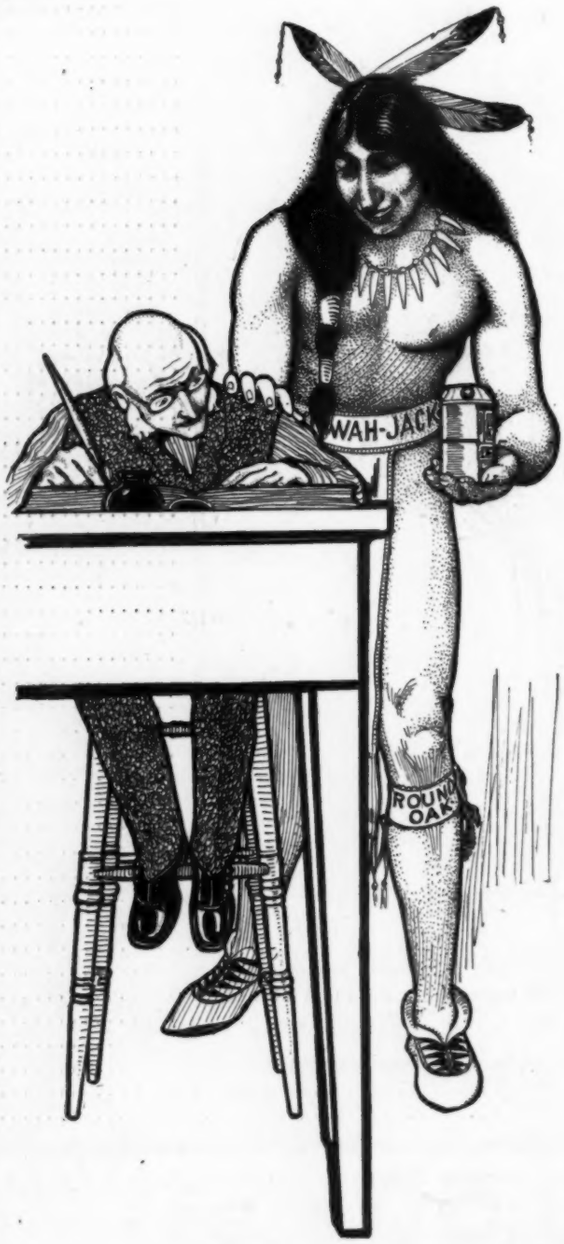
PRICE, $3.50 Per Copy.

Order from your bookseller, or from

DANIEL STERN,

69 Dearborn Street, CHICAGO, ILLINOIS.

ROUND OAK
Standard of America



Do YOU ever get weary figuring

HOW CHEAP YOU CAN PUT IN FURNACES?

WHEN YOU GET READY FOR RELIEF FROM TALKING *PRICE ONLY* WE CAN SHOW YOU A WAY OUT—MORE BUSINESS, MORE PROFIT.

Estate of P. D. Beckwith,
Dowagiac, Mich.

MAKERS OF GOOD GOODS ONLY.

25

CURTIS CANDY CHICAGO 1901

ESTABLISHED 1830

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

Terms of Subscription in United States, their Possessions, and Canada, (invariably in advance): One Year. Postage Paid, $2.00.
In Foreign Countries, Except Canada, One Year, Postage Paid, $4.00.

Address all letters, communications and remittances to

DANIEL STERN, President American Artisan Press,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.

This Paper is a Member of the Chicago Trade Press Association.

CHICAGO, JUNE 22 1901.

THE Toronto Retail Hardware Association, one of the most flourishing retail associations in Canada, has a very effective system for investigating abuses. It provides, in its constitution, that:

"An Investigating Committee of three members shall be elected annually. It shall be the duty of this committee to secure and investigate all complaints, provided such complaints are made in writing and signed by the party or parties aggrieved, and that such be accompanied by affidavits or other evidence to form a proper basis of complaint or source of investigation. They shall endeavor to adjust amicably all such grievances or complaints, and, if unsuccessful, shall bring the matter before the Executive Committee for action."

The idea of requiring affidavits is an excellent one. Several secretaries of hardware associations in this country can tell of detailed correspondence with members who had a grievance, but were very careless in acquainting the association officials with the necessary data for filing a satisfactory complaint.

EXPORTS from the United States in the fiscal year 1901, now about to end, will probably reach $1,500,000,000, the highest point ever recorded for a single year in the history of our export trade. For the eleven months ending with May, 1901, the total exports were $1,385,013,595, being double those of the corresponding period of 1889, and $100,000,000 in excess of the total for the eleven months of last year, which broke all previous records. Taking the commerce of the eleven months ending with May of various years as the basis of comparison, the figures of the Treasury Bureau of Statistics show that during the period under review our exports in 1889 amounted to $694,133,804; in 1894, to $834,636,085; in 1899, to $1,130,629,075; in 1900, to $1,285,831,125, and in the present year, as already stated, $1,385,013,595; while for the full fiscal year our total exports give promise of exceeding one and a half billion dollars, as the eleven months' figures only fall $115,000,000 short of that amount, and the monthly exportation of merchandise from the United States has exceeded $120,000,000 since March 1 of this year.

A GLANCE at the technical press shows that there is a revival of the keen interest in peat, which bubbled up quite strongly about 1894 and then subsided. It cannot be denied, as one paper says, that "no natural product of the earth has been so much neglected and so little esteemed as peat; yet it contains a mine of wealth for those who can appreciate its possibilities. By its adaptability as material for fuel, it is of particular interest now when the price of coal is so high in both hemispheres. It seems timely, therefore, to direct attention to this product, which exists in vast deposits throughout the temperate zone, the beds ranging from 10 feet to 40 feet in depth, promising an available supply for many years to come. Although, as yet, peat cannot successfully compete as a fuel with anthracite coal, since in proportion to its heating value it is of great bulk, and hence makes transportation dearer; nevertheless, with the necessity of making practical use of it, invention can not fail to be stimulated. The problem of so saturating and compressing it into bricks as to make it replace anthracite coal for household and industrial purposes can, without doubt, be solved eventually. Machines have already been constructed, by means of which this valuable product can be mined with facility, and peat been put to a variety of industrial uses."

RANDOM SKETCHES.

BY SIDNEY ARNOLD.

"Oui, Oui," ejaculated Count Frangipetti, thoughtfully twirling the ends of his mustache. "Ze Americaine is a people verr peculiarre. Zhay say mica bolts when the bolts are nevaire made of mica at all. The wood saws zhay are made of iron. Stone forks are not made of stone, nor are cotton hoes made of cotton. It is ze puzzle extraordinaire."

* * *

OUR old friend, Henry Hoogle, is, as we all know, an enthusiastic fisherman. The other day he sat in the rain all day, down on Marsh Lake, cheerful because the bass were biting well and he not only caught a fine string of big fish, but a nice lively dose of rheumatic spasms as well. As Henry hobbles around his bed-room he eagerly grabs every paper that comes and reads the advertisements of cures for rheumatism with avidity. These same advertisements that he peruses so diligently today appeared in the same papers prior to Henry's disastrous Marsh Lake excursion, but he never glanced at them at all.

Every salesman calling on the Ohio trade has tried to sell old Hiram McCorkle a nice bill of stove goods, but the liquid and other fascinations presented by Tom Buffy salesman for the Surething Stove Co. have been so potent that up until last Thursday McCorkle swore that Buffy was the only man he would ever buy goods

from. On that day Buffy, so to speak, killed the goose that was laying him golden eggs, by being too arrogant with his customer, and McCorkle swore he would never buy another dollar's worth of goods from him as long as he lived. McCorkle then picked up a stove trade paper and wrote letters of inquiry to a dozen stove manufacturers, whose advertisements he saw therein, asking if their representatives would kindly call. Now these same stove advertisements had appeared in this same paper two months before, but it was not until he took out a divorce from Buffy that he looked up these advertisements. It is true there are not many men like McCorkle in the business, but there are a few of them, just the same.

The other day a big manufacturing concern stopped making a small hardware specialty, let us say it was a lemon-squeezer, as they intended to devote their entire attention in the future to the manufacture of gaskets. Now John E. Potwoddle was one of the 400 retail dealers who had been selling this lemon-squeezer with moderate success. It is true Mr. Potwoddle had looked over the advertisements of lemon-squeezers in the trade press, and while he had been on the point of writing to some other house for a sample several times, he had not done so, concluding that the one he was handling was good enough for him, but when this was taken out of the market he read lemon squeezer advertisements with a deep, renewed interest, and, after some correspondence, sent in a nice order for a popular brand.

John Broad, the Wapota hardware dealer, is a bright young fellow who has been in business two years. He is not buying any great quantity of lawn mowers, though, as when he first started in he was foolishly persuaded to buy a carload lot of decidedly mediocre lawn mowers. He has long since repented this bad bargain, but he still has a lot of those lawn mowers on hand, and while he would like to invest in some new mower, with all the latest wrinkles, it will be some months yet before he feels he is in a position to invest any more money in lawn mowers. When that time comes he will take more interest in lawn mower ads than he does today.

You saw that item last March, didn't you, to the effect that the Cathode Ray Mfg. Co. had decided to move their extensive factory from Detroit, Mich., to Quiettown, Ind.? As a result of this removal Quiettown is having the greatest boom it ever knew. Mooter & Phriff, the old-established Quiettown hardware dealers, are experiencing a wonderfully acute and unprecedented demand for builders' hardware. Henry Phriff, who was in Chicago the other day, told me that they sold more locks, nails, knobs, hinges and similar goods in April and May last than they sold during the preceding decade. This condition, of course, makes the members of this firm a great deal keener readers of advertisements of builders' hardware than they were last February.

The moral of these various tales would seem to be that keeping everlastingly at it is the only road to success as an advertiser.

* * *

I WAS looking through a hardware jobber's catalogue for 1875 the other day, and was struck by the great advance that has been made in the production of artistic goods. Table cutlery and wrought iron fences, door knobs and metal furniture decorations show a finish today that was not attempted till within the last decade. In this old catalogue the quality of metal was the one point urged. There were a few conventional designs used and everything was cast in these same forms. There was little or no attempt to adopt new and individual designs. Now there is hardly an ugly piece of metal in the entire stock of a hardware dealer. Even the hinges and locks of the ordinary doors are curved and patterned after some artistic if conventional form. In brass or iron the attempt is made to make the articles of artistic as well as utilitarian importance. The designs in door knobs, door knockers, locks and bells are almost endless, but the older, conventional ones are gradually giving way to the newer and more expressive products of the designers. Builders' hardware is now selected that will harmonize with ideas that have been expressed in wood and wall-paper decoration. Instead of detracting from the woodwork and decorative effect, artistic hardware adds greatly to it.

I compared the table cutlery of today and that of a generation back, as shown in this old catalogue. I was surprised at two things. One is the greater variety of articles in common use, and the second is the artistic and sometimes ornate decoration and design bestowed upon the handles and blades. For the most part all this decoration is of an artistic order, and not mere coarse lines and curves woven and interwoven in a meaningless pattern. The designer has had a definite idea and motive in mind, and this has been successfully carried through all his work. Sometimes the first impression may seem confused, and the ornamentation crude, but a little study will tell a different story. It will be seen that beneath the lines and curves there is some central idea which gives a new value to the table cutlery, whether made of silver or steel.

Frequently in country houses artistic iron fences, gates, doors and window bars are all designed after plans sketched out by the architect. In many of the residences of our wealthier citizens the wrought iron fences and portals are as elaborate and delicate in design as any Rookwood vase. From the old-fashioned heavy knockers on the door to the wrought-iron roof and barred windows there is a similarity of design which shows that a central idea is carried into every detail. The iron, bronze and silvered metals form the base and framework of windows, panels, plate-glass doors, lanterns, court-yard vases and urns, and even stairways and ceilings. All this metal work is intended to convey the impression of massiveness and solidity, linked with art and gracefulness of form and outline. The silver bolted doors and ornate iron entrance and fireplace are intended to lighten the effect of dark woodwork, producing an effect in combination that wood or metal alone could not show.

News Siftings.

The Republic Iron & Steel Co. are starting up their Birmingham, Ala., plants.

It is said that a firm is being organized in Wheeling, W. Va., for the manufacture of gas stoves on a large scale.

The American Gas Fixture Co. and the Oxley & Enos Mfg. Co., New York City, have consolidated with a capital stock of $450,000.

No unsoundness can be discovered in the pig iron situation, and a general movement in this metal cannot be expected prior to July 1st.

W. H. Weller, E. S. Jones and J. N. Bellinger are among those interested in a new stove foundry at Gadsden, Ala., capitalized at $8,500.

Thomas S. Dunlap, J. O. Mansfield, A. W. Masser, Geo. C. Johnson and H. C. Boyd are the incorporators of the Pioneer Stove Co., Cleveland, O., capitalized at $200,000.

The Depinet Foundry Co., who succeed the Chicago & Erie Stove Co., at Erie, Pa., have leased the foundry at that point formerly occupied by the Erie Car Wheel Foundry.

Ralph W. Hoyt, W. R. Hampden, Will F. Wright, Samuel Wilson and H. H. Wright are the incorporators of the Hampden Stove Mfg. Co., Portland, Ore., capitalized at $50,000.

The Joliet Stove Works, Joliet, Ill., have been forced, by the wonderful growth in the demand for their goods, to erect a very large addition. This will be one story in height and 100x100 feet, giving them an additional floor space of 10,000 feet.

M. G. Mangasarian, Bible House, Constantinople, Turkey, has been for over 20 years an importer of American hardware and specialties, and would be glad to correspond with manufacturers desirious of pushing the sale of their goods in the Orient.

E. Bement Son, Lansing, Mich., will merge their business into a corporation with a capital stock of $1,250,000, composed of 6 per cent cumulative preferred and $750,000 common stock. It is said the company is doing a business of $800,000 per annum at a net profit of $100,000.

The Quicklight Mfg. Co., 204 Dearborn St., Chicago, are meeting with merited success in their sales of Quicklight lamps for household use. These lamps require no generating, no alcohol and no waiting, as they light instantly, can be turned up or down, as desired, and are absolutely safe.

The Franke & Purnell Co. are successors to the Franke & Evans Co., Baltimore, Md., as manufacturers, importers and dealers in oil paintings, engravings, etchings, water colors, mirrors, exclusive picture frames, etc. W. Roby Purnell with this firm was formerly with the Kemp Mfg. Co., Baltimore, Md.

The Ideal Mfg. Co., Detroit, Mich., send us a little circular describing their Ideal gas stoves and ranges for natural and illuminating gas. A sample of these ranges is the 680-880, with cast front drop door, loose and removable ovens and burners, adjustable needle valves and interlocking safety oven supply.

The Ringen Stove Co., St. Louis, Mo., have made important improvements in their line of Quick Meal steel ranges. Their left-hand reservoir has proven itself to be a decided success and to meet all requirements a right-hand reservoir on the same principle has been added. A new pouch feed has been added and a number of other changes have been made.

Few railroad men are more popular or have proven themselves better fitted for the arduous duties of railroad life than Allen Hull, division passenger agent of the Norfolk & Western railroad. Mr. Hull has been in Cincinnati recently, solving the passenger problems arising from the absorption of the Cincinnati, Portsmouth & Virginia road by the Norfolk & Western.

One of the New York aldermen has introduced an ordinance prohibiting the use of gasolene within the city limits of Gotham. Should this become a law the use of gasolene engines of all kinds, in the city or on the water about it, motor carriages, flare lights, heating apparatus, stationary or marine engines run by gasolene or by steam made by gasolene would be barred.

Among the features of the Forest Cinderella wood stove, manufactured by the Pittsburgh Stove & Range Co., Pittsburg, Pa., are the heavy cast iron linings, 16 inches high, pipe collar, interchangeable with top and end, sweat damper to prevent creosote deposits and a screen draft register, which, it is claimed, gives perfect control of the fire. W. D. Sager, 38-40 Michigan St., Chicago, is western sales agent for this company.

The claim is made by the firm of R. J. Schwab & Sons Co., 281 Clinton St., Milwaukee, Wis., that they make the largest line of warm air and combination warm air and hot water heaters on the market. Their Gilt Edge furnaces are widely known for their durability, superior construction and economy of fuel. They also manufacture registers and tin and galvanized iron furnace fittings.

The Art Stove Co., Detroit, Mich., are getting out a clever advertising novelty in the shape of a cast iron nickel plated axe, with 3-inch handle and 2-inch head. This is designated as an "Ax of All Nations," and cut in the head is the resolute physiognomy of an elderly and spectacled female who will be at once recognized as our mutual friend, "Carrie Nation." On the axe handle is the legend, "Buy Laurel stoves and ranges."

The Economy Stove & Mfg. Co., Detroit, Mich., are bringing out a new and entirely original gas range under the name "Real Economy." This range marks a revolutionary deviation from old style ranges. Among its striking features are the elevated ovens and broilers, which are above the body of the stove. These new gas ranges have met with very marked favor from dealers who have seen them, and have universally declared them to be winners.

Chas. A. Rusco, the enterprising western manager of the Abram Cox Stove Co., Philadelphia, with head-

quarters at 15-19 W. Lake St., Chicago, is to be complimented on the new stationary he is using. The letterhead shows the striking trade mark of this concern flanking on the one side by the Philadelphia plant of this concern, and on the other by the Landsdale plant. Mr. Rusco has just received from his engraver proofs of the half-tones of the exterior and sectional views of the beautiful Golden Novelty heater, whose ornamentation and construction makes it a strong bidder for fat orders and plenty of them.

The Thomas White Stove Co., Quincy, Ill., are manufacturers of White's Model steel cooks. These stoves have bodies made of a superior quality of polished steel, full sized and extra deep ovens, spring balanced oven doors, combined revolving and dump grate, triple-lined walls, asbestos on bottom protected by outside shield, bottom oven plate securely braced, asbestos-lined top oven plate overlaid with open cast shield, anti-rust back plate in front of reservoir, pouch feed, front screw dampers, nickeled coffee pot stand and towel rod. These steel cooks are equipped with many improvements entirely original with these manufacturers.

Among the popular stoves manufactured by the Portsmouth Stove & Range Co., Portsmouth, O., is the Model Radiator for hard or soft coal. This stove is made in four sizes, No. 12, 14, 16 and 18. Every one of these stoves is a single or double heater complete without the use of extra parts. It has large heating surface, reversible pipe collar, substantial outer casing, joints ground and cemented, all doors fitted air tight, patented air draft register in ash pit door, and handsome nickel ornamentation. A feature of this stove is this firm's new patented method of holding the sheets of mica. They will not get out of place or smoke up.

The Abram Cox Stove Co., Philadelphia, with Chicago office 15-19 West Lake St., Charles A. Rusco manager, are giving away to the trade a very clever little advertising novelty in the shape of a vest-pocket match box. On the front and rear of this match box are reproductions of the attractive trade mark of this company. Each match has stamped on its side the legend "Novelty Stoves." The inside of the cover shows a calendar for 1901, and states that this firm have just made an expenditure of about $50,000 for new patterns for stoves especially for the western trade. One of these advertising novelties will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN

The Marion Stove Co., Marion, Ind., send us a handsome photograph of their handsome Retort Oak stove. The magazine is located in the center of this stove, suspended from a plate fastened to the shell of the stove. The plate divides the space into an upper and lower chamber. The plate is cut away from the front side to allow the products of combustion to pass from the lower to the upper chamber, thence to the flue. This plate has a central opening, directly over the upper end of the magazine, which opening is opened and closed by means of a sliding cover, to which cover is attached a rod extending forward through the shell of the stove, by means of which rod the sliding cover is drawn forward to open the magazine and pushed back to close it. The magazine has a pipe attached to its back side, and an opening near its top, which connects the space inside the magazine and above the coal with the combustion chamber, by means of this pipe; this allows gases generated in the baking process to be returned to the combustion chamber, where they are consumed. In the top of the stoves and centrally located is a funnel, whose top is covered by the swing cover, which contains the check register. This firm would be pleased to send some of their trade literature to dealers on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

DOE-WAH-JACK.

The ordinary Indian is content to allow his squaw to pile a few sticks of wood together in the center of the tepee in winter or in front of his wickiup in summer. There is one Indian, however, whose familiarity with heating apparatus is of the highest order. This master of heating science is not a flesh and blood Indian, with a preference for grease for external and booze for internal application, but is the clever advertising creation of the Estate of P. D. Beckwith, Dowagiac, Mich. Doe-Wah-Jack is his name, and he is a familiar figure to our readers, as his benign features loom up now beside a Round Oak heater and again close to a Round Oak furnace, and "the name is on the leg" in the shape of a pretty garter. This Indian has proven himself a great mascot for the Round Oak goods, as these popular stoves, ranges and furnaces are today in greater demand than ever.

HOLLOWWARE CATALOGUE.

The Blacklock Foundry, South Pittsburg, Tenn., send us their up-to-date 1901 catalogue of hollowware. This volume shows sad irons, country and stove hollowware, ground and unground; sugar kettles, English pots, cast iron shoe lasts and stands, kitchen and corner sinks, grates, etc.

Their sleeve or flouncing sad irons have a blunt nose, so shaped as to insure perfection of work and perfect freedom from the destruction of garments from snags, etc. The irons are made in two sizes, 3 and 4 pounds each the bodies being coated with heat-proof aluminum enamel. Face, sides and heel are highly polished.

Their line of stove hollowware is a very complete one. It includes stove kettles and pots, blacked and bailed, Southern pots with round bottom, Eccentric stove kettles and pots, stove skillets, stove griddles, long pans, shallow sad iron heaters, gridirons, waffle irons, iron ham boilers, tea kettles, muffin bakers, round griddles with bails, Scotch bowls, etc. Their Eccentric stove kettles and pots are made in sizes to fit 6 and 7 inch, 7 and 8 inch or 8 and 9 inch holes. The peculiar construction of the bottom enables them to be used on either size hole designated by the number. These kettles and pots can also be used on smaller top stoves by turning the narrow rims of bottoms together.

One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

STEWART STOVES AND RANGES.

A handsome 188 page catalogue has been forwarded us by the Fuller-Warren Co., Milwaukee, makers of the popular Stewart stoves and ranges. Their Stewart steel range, for hard or soft coal or wood has counter-sunk bolts on front and in oven. The fire box is oval and is fitted with reversible duplex grates, ample ventilation being given to all parts to insure durability. The ash pan is very large. The elevated shelves and closets are of extra height and size. The flues are constructed upon the sheet-flue principle and are lined with asbestos. The oven plate is doubly protected by a thick resisting cast plate next to fire box, underneath which is a sheet of double thick asbestos extending the entire length of the oven top, releasing the strain of intense heat next to fire box and equalizing the temperature of the oven. A further defense of the oven top plate is a very heavy cast center support which will not wear out. The oven bottom cannot warp or buckle, it is claimed, as it is securely braced with heavy bars of iron, which are bolted to bottom of oven by counter-sunk bolts every three inches apart. The grate can be removed at any time without disturbing any part of the fire box. The nickel plating is of the finest possible finish and is put upon all top plate edges, door flanges, corner strips, damper handle, high shelf and high closet, top guards, tea pot bracket, high closet name plate, towel rods, lifter, shaker, and poker and pipe check-draft register, also upon oven door handle.

The Acme Stewart steel cook has square ovens of extra height, with tops protected from direct action of fire by heavy cast protection plates, fronts by heavy asbestos board and bottoms doubly braced to prevent buckling. The fire box is of the latest construction, with extra heavy sectional knob, linings for soft coal and smooth linings for hard coal.

The Home Stewart steel oven range, for hard or soft coal or wood, is an entirely new and handsome production, a feature of which is this firm's latest pattern self-indicating oven damper, also patent top check slide in pipe collar insures perfect control of the fire at all times.

The Champion Stewart range, for hard coal or wood, six holes has been especially designed to meet the demand for a thoroughly modern hard coal range that will sell at a popular price.

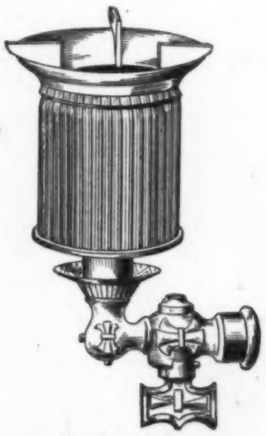
The Radiant Stewart, for anthracite coal, is a strictly high grade, double heating base burner, which has been materially improved for 1901. The nickel plated top section has been enlarged, and the reflector top increased both in height and length. This base burner has new nickel plated swing cover and a special new design of urn. It has new nickel plated side columns, new and wider nickel plated name plate, new nickel plated front plate on ash pit door, the full length and height of door and new design and wider nickel plated rails.

The Stewart Oak has dust and gas-tight fire pot, nickel parts of extra size, heavy ribbed fire pot, extra size feed door, extra large spark arrester and extra large ash pan.

One of these very handsome catalogues with their full line of new goods will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

NEW GAS STOVE.

What do you think of a real gas stove that is so small and light you could easily carry a gross of them in a market basket? Such a gas stove is being put on the market by the Favorite Novelty Co., 139 Beaubien St., Detroit, Mich. All you have to do to get a hot fire with this stove is to slip it on an ordinary gas burner, turn on the gas and light the top of the stove. It is always ready for heating water, milk, medicines, curling irons, etc., and can be transferred from one room to another with no trouble. It will not black or smoke. This stove is 3 inches high and 2 inches in diameter. The base and grate are made of cast iron, while the cylindrical body is made of corrugated tin. At the top of this body just below the grate is a wire gauze.



New Gas Stove.

Henry P. Cope, who is well known to the readers of THE AMERICAN ARTISAN, having been for a number of years a manufacturer of stove patterns, and who later became identified with the Hygienic Seat Co., of Detroit, is the inventor of this new gas stove.

CREDIT MEN MEET.

The National Association of Credit Men, at their meeting held last week, elected E. A. Young, St. Paul, president; J. Harry Trejoe, Baltimore, vice president, and W. A. Prendergast, New York, secretary and treasurer. Louisville was selected as the next meeting place of the association. Among the resolutions passed by this association were the following:

Resolved, That it is the judgment of the National Association of Credit Men that the efficacy of trade information through commercial agency sources will be largely promoted if the agencies will inquire of their subscribers at least twice a year regarding the paying qualities and desirability as credit risks of all concerns upon whom those subscribers have asked reports, and that the results of such investigation be made a part of the regular reports issued by the agencies.

Resolved, That the board of directors of the National Association of Credit Men be authorized to select a reliable attorney at the county seat of every county in the United States, to act as an investigator of records,

who shall be under contract and bond to furnish information to members of the association, of a reliable character, and at a nominal fixed charge, such information to be furnished upon uniform blanks, to be of such form and contain such data as the board of directors shall determine.

Resolved, That the committee on credit department methods be instructed to formulate a simple plan of bookkeeping for the use of the owners of retail stores, and that the members of the association be requested to distribute copies of this plan among their customers, and secure its adoption through that means.

SMOKELESS HOT BLAST.

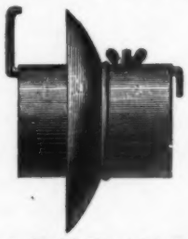
The Ohio Stove Co., Portsmouth, O., are manufacturers of the Smokeless Hot Blast, shown herewith. This stove has a fire pot consisting of thirty sections, each section weighing three pounds, or ninety pounds

Smokeless Hot Blast.

for the fire pot complete. This fire pot can be removed in sections without dismantling the stove or removing a bolt. This fire pot is so constructed that the air is taken in at the draft door, circulated around the fire pot and passed into the fire through the sections, coking the fuel toward the center of the fire pot, and consuming all the smoke and gas. The grate is large, anti-clinker and ball bearing. The stove has a large ash pan. It is mounted in 14 gauge steel. This stove will hold fire 36 hours, and is especially recommended for burning slack. The manufacturers guarantee the fire bowl for five years.

HAYLOR'S HOLD FAST STOVE PIPE.

Stuber & Kuck, Peoria, Ill., are manufacturers of Haylor's Hold Fast stove pipe, shown in the accompanying cut. This stove pipe is made 9 1-3 inches long. Each joint is ready, fitted with a fastening device and beautifully designed gilded collar, which



Haylor's Hold Fast Stove Pipe.

measures 10½ inches in diameter for the six-inch pipe and 11½ inches in diameter for the seven-inch pipe. It is provided with a heavy tin gilded collar, which cannot be forced over the swedge. It is so constructed that it cannot be placed over four inches in the flue hole, and at the same time the manufacturers absolutely guarantee it will not become loose from the flue hole except at the will of the operator. It does away with unsightly wires, screws or hooks, nailing of the collar, etc.

LANE'S STEEL CARRIAGE JACK.

The accompanying cut shows Lane's steel carriage jack, manufactured by Lane Bros. Co., Poughkeepsie, N. Y. This jack is made entirely of steel. It has double levers near the base, giving great lifting capacity for the size of the jack. These levers are mainly inside the steel case, and are free from obstruction, and all are near the base. Whatever may be the height of the axle, it is sustained directly over the center of the base, thus obviating any tendency to carry the wagon forward or back and tip the jack over. The adjustment is convenient and rapid, with a wide range in height to fit all ordinary vehicles. It is made in four sizes, to lift 500, 900, 1,800 and 4,000 pounds respectively.

Lane's Steel Carriage Jack.

The trade should write this firm for one of their interesting catalogues devoted to hardware specialties. When writing them kindly add: "Saw it in THE AMERICAN ARTISAN."

The hardware store of J. C. Cozad, Wayne, Mich., was visited by burglars June 16th. About $75 worth of razors and cutlery were stolen.

The Hardware Record.

Arkansas Retail Hardware Dealers' Association.
Pres. E. W. Horne, Forest City.
1st Vice-Pres., J. M. Pittman, Prescott.
Secy-Treas., J. A. Plummer. Marianna.
Executive Committee: J. P. Rudolph, Arkadelphia; E. E. Mitchell, Morrilton; W. M. Harrell, Conway; F. C. Stearns, Hot Springs; J. A. Tappan, Helena.

Chicago Retail Hardware Association.
Pres., D. McLaughlin.
Vice-Pres., H. E. Gnadt.
Sec., G. R. Lott.
Collector, John Hora.
Treas., I. L. Smith.

Hardware Merchants' and Manufacturers' Association of Philadelphia.
Pres., Hugh McCaffrey.
Vice- Pres., Wm. C. Peters.
Sec.-Treas., T. James Fernley.
Directors, William W. Supplee, Samuel Disston, John H. Griffith, James H. Ritter, William C. Peters, Thomas Devlin, Fayette R. Plumb, Hugh McCaffrey and T. James Fernley.

Illinois Retail Hardware Dealers' Association.
Pres., H. G. Cormick, Centralia.
Vice-Pres., Wm. Bittel, Peoria.
Sec., G. R. Lott, Chicago.
Treas., F. F. Porter, Chicago.
Ex. Com., Z. T. Miller, Bloomington; W. T. Gormley, Chicago; H. N. Murphy, Galesburg; C. Mauer, East St. Louis; C. Williams, Streator; L. Babst, Kankakee.

Indiana Retail Hardware Dealers' Association.
Pres., W. P. Lewis, New Albany.
V.-P., J. L. Hutton, Portland.
Sec. and Treas., M. L. Corey, Argos.
Members Ex. Com., I. A. Sibley, South Bend; E. M. Bush, Evansville; W. H. Weed, Vincennes.

The Retail Hardware Association of the Indian Territory.
Pres., Geo. W. Mowbray, Tulsa.
First Vice-Pres., J. G. Smith, Canadian.
Second Vice-Pres., Fred Parkinson, Wagoner.
Sec., Dick Miller, Poteau.
Treas., Sam R. Frazee, Vinita.

National Retail Hardware Dealers' Association.
Pres., W. P. Lewis, New Albany, Ind.
Vice-Pres., Geo. Hubbard, Flint, Mich.
Sec., M. L. Corey, Argus, Ind.
Treas., H. T. Helgeson, Milton, N. D.
Ex. Com., Z. T. Miller, Bloomington, Ill.; Fred Neudorff, St. Joseph. Mo ; I. A. S.bley, South Bend. Ind.; H. A. Cole, Council Bluffs, Ia.; H. G. Cormick, Centralia, Ill.

Iowa Retail Hardware Dealers' Association.
Pres., W. A. McIntire, Ottumwa.
Vice-Pres., E. G. Penrose, Tama.
Sec., C. W. Brelsford, Villisca.
Treas., W. A. McIntire, Ottumwa.
Ex. Com., A. C. Heyman, Miles; L. Lindenberg, Dubuque; F. S. Narum. Waukon; E. G. Penrose, Tama; W. A. McIntire, Ottumwa; L. H. Kurtz, Des Moines; H. A. Cole, Council Bluffs; Harry Vincent, Ft. Dodge; W. H. Miller, Cherokee; M. W. Keating, Afton; Jacob Seither, Keokuk.

Kansas Hardware Dealers' Ass'n.
Pres., Geo. F. Andersen, St. Marys.
Vice-Pres., Oscar Roehr, Topeka.
Sec., J. A. Cole, Topeka.
Ex. Com., James H. Hamilton, Arkansas City; E. I. King, Logan; T. H. Kiniry, Beloit; J. M. Walters; Robinson; F. W. Bartlett, Kansas City.

Kentucky Retail Hardware and Stove Dealers' Association.
Pres., Geo. Dehler, Louisville.
1st V.-P., J. S. Ogden, Ashland.
2nd V.-P., Chas. D. Winn, Paris.
Sec., Paul Wagner, Louisville.
Asst. Sec., Wm. Dehler, Louisville.
Treas., Henry Heick, Louisville.

Michigan Hardware Association.
Pres. Geo. W. Hubbard, Flint.
Vice-Pres., H. C. Minnie, Eaton Rapids.
Sec. Fred H. Cozzens, Detroit.
Treas., H. C. Weber, Detroit.
Ex. Com., C. E. Pipp, Otsego; A. J. Scott, Marine City; J. B. Sperry, Port Huron; A. Harshaw, Delray; G. B. M. Towner, Muskegon, for one year; Jas. J. Potter, Alpena; Jno. W. Iochim, Ispheming; Robt. G. Chandler, Coldwater; John Popp, Saginaw; F. S. Carlton, Calumet, two years.

Minnesota Retail Hardware Association.
Pres., W. H. Tomlinson, LeSueur.
Vice-Pres., H. S. Cleveland, Minneapolis.
Sec., T. McCracken, Minneapolis.
Treas., G. M. Evanson, St. Peter.
Ex. Com., F. H. Hunt, Red Lake Falls; B. J. Kernkamp, St. Paul; Julius Schmidt, Wabasha; W. H. Tomlinson, LeSueur; A. C. Hatch, Battle Lake; Jos. Mason, St. Peter; Chas. F. Ladner, St. Cloud; S. R. Nelson, Owatonna; E. H. Loyhed, Faribault.

Missouri Retail Stove and Hardware Dealers' Association.
Pres., B. F. Naylor, Marshall.
V.-P., Geo. R. Plowman, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., R. L. Hixon, Hannibal; F. A. Kannlsteiner, St. Louis; J. W. Poland, Carrollton; W. A. Wingert, Kansas City.
Advisory Board, P. E. Harney, Joplin; E. Stuelzing, Kansas City; J. M. Kenyon, Maitland; W. T. Shoop, Richmond; G. A. Pauly, St. Louis.

National Hardware Association.
Pres., John Bindley, Pittsburg.
First Vice-Pres., R. W. Shapleigh, St. Louis.
Second Vice-Pres., Brace Hayden San Francisco.
Sec-Treas., T. James Fernley, Philadelphia.
Ex. Com., W. K. Belknap, Louisville: John C. Koch, Milwaukee; R. A. Kirk, St. Paul; Samuel A. Bigelow Boston; P. E. Strauss, Boston; J. D. Moore, Birmingham.

North Dakota Retail Hardware Dealers' Association.
Pres., H. T. Helgesen, Milton.
Vice-Pres., H. N. Joy, Hamilton.
Treas., W. H. Pinkerton, Lakota.
Sec., C. N. Barnes, Grand Forks.
Ex. Com., H. Harrington, Fargo; W. W. Jamieson, Wahpeton; H. F. Strehlow, Casselton; I. L. Newgard, Grafton; H. B. Allen, Jamestown; H. A. Mae, Church's Ferry.

Ohio Hardware Association.
Pres., O. M. Scott, Marysville.
Vice-Pres., W. P. Bogardus, Mt. Vernon.
Cor. Sec., Geo. Gray, Coshocton.
Financial Sec., Will C. Jones, Columbus.
Treas. H. G. Woodward, Sidney.
Ex. Com., Geo. B. Meyer, Cincinnati; Geo. V. Guyton, Ada; H. F. Rahe, Cleveland; J. Rohrbacher, Akron; A. H. Strome, Warsaw; Frank Winters, Lancaster; James B. Carson, Hamilton; R. Brown, Washton Court House.

Philadelphia Retail Hardware Dealers' Association.
Pres., Frank Schmidt.
Vice-Pres., Julius M. Aff.
Sec., T. B. Hendricksen.
Treas. Edward H. Shannon.
Trustees, Wm. E. Andrews, Lewis C. Claditg and Aaron I. Sanson.

St. Louis Stove Dealers' Ass'n.
Pres., F. A. Kansteiner.
First Vice-Pres., Aug. Steinmeyer.
Second Vice Pres., Aug. Gruendler.
Sec., A. F. Geschwindner.
Treas., L. J. Boehl.

Southern Hardware Jobbers' Association.
Pres., J. D. Moore, Birmingham, Ala.
Vice-Pres., C. E. Speer, Ft. Smith Ark.
Second Vice-Pres., F. W. Heitmann, Fort Worth, Tex.
Sec., C. B. Carter, Knoxville, Tenn.
Ex. Com., C. H. Ireland, Greensboro, N. C.; G. W. Barnett, Montgomery, Ala.; O. B. Barker, Lynchburg, Va.; Wm. Crumley.

Texas Hardware Jobbers' Association.
Pres., F. A. Heitman, Houston.
First Vice-Pres., J. C. Bering, Houston.
Second Vice-Pres., Ed. Strauss, Waco.
Sec.-Treas., Robert Eikel, Houston.
Ex. Com., Jas. Moroney, Dallas; R. F. Bell, Weatherford; W. L. Sanford, Sherman; A. E. Goeth, Austin.

Wisconsin Retail Hardware Dealers' Association.
Pres., John Hessel, Antigo.
Vice-Pres., Otto Schlafer, Appleton.
Sec., C. A. Peck, Berlin.
Treas., George Leverenz, New Holstein.
Ex. Com., Henry Droegkamp, Milwaukee; Aurhur Heins, Tigerton; E. H. Ramm, New London; J. Wilkie, Fond du Lac.

The Hillsdale Screen Co., Hillsdale, Mich., recently increased their capital stock from $15,000 to $30,000.

The Sanitary Can Co. is a new Brooklyn, N. Y., concern, capitalized at $100,000.

The Hurd Refrigerator Co., Duluth, Minn., have decreased their capital stock to $60,000.

The Gray & Dudley Hardware Co., Nashville, Tenn., will increase their capital stock from $350,000 to $450,000.

The C. F. Schmidt Hardware Co. are a new Burlington, Ia., wholesale hardware house, capitalized at $100,000.

Davidson, Bagley & Co., are a new Memphis, Tenn., wholesale hardware house who will begin business August 1st.

The Griffin Mfg. Co., Allegheny, Pa., manufacturers of a large line of hardware specialties, will, it is said, shortly locate in Erie, Pa.

Edmund Beall, Chas. Beall, J. Wesley Beall and Charles L. Beall are the incorporators of the Beall Shovel Co., Alton, Ill., capitalized at $5,000.

F. B. Krieg & Co. succeed John Stoskopf in the hardware business at 55 Stephenson St., Freeport, Ill. Mr. Krieg will put in a full line of builders' hardware, sporting goods, stoves, etc.

The Maryland Hinge Co., Baltimore, Md., a new concern, have secured a three-story factory which they are fitting up for the manufacture of strap and T hinges, wrought steel butts, shelf brackets, etc.

Lars H. Solosth, president of the Michigan Hardware Mfg. Co., Grand Rapids, Mich., has just secured patent No. 676,776 on a very handsome new design of stove board. The ornamentation of this is very simple, but unique and attractive.

J. T. Mercer, W. H. Tallman, A. P. Tallman, Walter Topping, R. C. Dalzell, William Gorby and T. H. Johnson are the incorporators of the Columbian Enameling and Stamping Co., Terre Haute, Ind., capitalized at $450,000, for the manufacture of stamped metal ware.

The J. Stevens Arm & Tool Co., 245 Broadway, Chicopee Falls, Mass., have recently placed on the market a full line of high grade golf clubs at popular prices. This firm are also prepared to furnish a full line of rifle-cleaning rods, from the plain slotted coppered to the fancy jointed with cocobolo swivel handles. They are making attractive prices on quantity orders of these goods.

The Harrington & King Perforating Co., 212 N. Union St., Chicago, have a magnificent equipment of punches and dies, which enables them to finish a bewildering variety of perforated metal specially adapted for a variety of uses. Progressive hardware dealers find perforated metals very profitable goods to handle, and every dealer can find a greater or less demand for these goods in his vicinity.

Negotiations are under way for the sale of the Colt's Patent Fire Arms Manufacturing Co., Hartford, Conn., to the Colt's Arms Co., New York. The proposed directors for the new company are John H. Hall, William C. Skinner, Hartford; Geo. E. Armstrong and Frank A. Schirmer, Boston, and J. F. A. Clark, New York; and the officers, John H. Hall, president; William C. Skinner, vice president; Frank A. Schirmer, treasurer, and Lewis C. Grover, superintendent.

The Dublin Agricultural Works, Dublin, Ind., send us a couple of circulars devoted respectively to their Rival low-down lawn and porch swing and their Keith churn. The Rival lawn swing has frames and hangers made of black enameled steel to insure durability. The platform and chairs are made of wood painted red. The Keith churn has a dash so constructed that a great number of narrow paddles pass through the cream, cutting the cream to pieces at once and releasing the butter.

We have been informed by the Ericsson Telephone Co., No. 296 Broadway, New York City, that the Ericsson telephone was awarded first prize at Paris, 1881; Madrid, 1883; Vienna, 1884; Stockholm, 1886; Copenhagen, 1888; Chicago, 1893. Also that their exhibit in Paris in 1900 was from the St. Petersburg, Russia, factory, which was also awarded first prize. This year their exhibit of a 50-subscriber switchboard and a few of their different telephones at the Pan-American Exposition at Buffalo is made in Section S, of the Electricity Building, with W. Jac Marland in charge.

The many friends of Mrs. Henrietta E. Kupper, of Burlington, Ia., will learn with deep regret that she has been very ill for the past three weeks at Mercy Hospital, Burlington, suffering from nervous prostration. Every member of the Iowa Retail Hardware Dealers' Association is under the deepest obligations to Mrs. Kupper for the magnificent work that accomplished lady performed as secretary and as state organizer of the association. She entered heart and soul into the cause of Iowa retailers at a time when the outcome of the association was very enigmatical, and by her tactful enthusiasm and rare energy secured a very large number of leading dealers as members of the association. In fact, this lady, by her own work, brought more members into the Iowa association than several states can count in their entire membership.

The Kneeland Crystal Creamery Co., Lansing, Mich., send us a catalogue describing their Kneeland Omega separator. The bowls in this separator are all furnished with the latest two-part design. These separators are very light. The Omega No. 1 Jr., with a capacity of 275-300 pounds per hour, weights only 75 pounds. As these separators run without vibration and with a low-down bowl they do not need as heavy parts to the frame as those that are perched on top of a long spindle. The cream in the Omega is thrown to the center and passes directly downward and out into the cream can, flowing freely and smoothly, making the quality absolutely pure, while the density can be regulated with perfect ease. One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

OFFICIALS OF MICHIGAN ASSOCIATION MAP OUT PLAN OF ANNUAL MEETING.

The Executive Committee of the Michigan Retail Hardware Dealers' Association met at the Hotel Cadillac, in Detroit, on Wednesday, June 12th, with the following members present: H. C. Minnie, Eaton Rapids; Henry C. Weber, treasurer and Fred H. Cozzens, secretary, of Detroit; Messrs. C. E. Pipp, Otsego; A. J. Scott, Marine City; A. Harshaw, Delray, Robt. C. Chandler, Coldwater, and John Popp, Saginaw, members of the Executive Committee.

In the absence of G. W. Hubbard, president, who was unable to be present, Vice President Minnie occupied the chair and called the meeting to order.

The secretary's financial report showed:

Receipts since last convention	$979.62
Disbursements	662.12
Balance in bank	$317.50

Twenty-six new members have been taken in since the last convention, and it is expected that between 50 and 100 more will join at the next meeting.

After a general discussion of the matters before the body, the secretary was instructed to arrange a program with the following speakers: W. P. Lewis, of New Albany, Ind., president of the National Association of Retail Hardware Dealers, on the subject of "National Association Work;" R. G. Chandler, of Coldwater, Mich., on "The Best Methods of Running a Hardware Store;" Mr. H. C. Weber, of Detroit, on "Store Window Dressing and Keeping Stock in Good Order." "The Collection of Accounts" was to be handled by Mr. Cleland, attorney of The Commercial Credit Company, of Detroit.

It is planned to hold the second day's session at Rushmere Club at the Flats, the party leaving Detroit on the fast steamer "Tashmoo" at 9 o'clock in the morning, reaching Rushmere Club at noon, holding the afternoon session there, and returning at 7 o'clock in the evening and reaching Detroit at about 9 o'clock. It was thought that this would provide recreation and at the same time give ample opportunity for the transaction of unfinished business from Wednesday's afternoon session. The first session of the convention will be held at the Hotel Cadillac, on Wednesday, August 14th, where the headquarters of the convention will be. This meeting will continue as late as necessary, and it will be planned to dispose of all other business at the afternoon session at the Flats. It is possible that a session may be held on the "Tashmoo" in the morning going up, if it is found necessary.

A number of practical discussions on the advantages of association work and on the National Association, will come up in the question box topics, so that every dealer who comes may be assured of a helpful, dollar-bringing meeting, and at the same time be assured of sufficient entertainment in the shape of boat rides, etc., to make it desirable to come and bring his wife and children.

An unusually large attendance is anticipated, as the meeting was postponed from July until August on purpose to meet the needs of the country dealer, who finds it difficult to get away in July.

BUSINESS CHANGES.

NEW FIRMS.

Washburne, N. D.—C. A. Rorig.
Bankers, Mich.—James Baxter.
Council Grove, Kan.—Press Scott.
Aberdeen, S. D.—Aberdeen Hardware Co.
Crafton, Pa.—Thomas Silk.
Fairfield, Me.—Allen Totman Co.
Findlay, Ohio—Conrad Gassman.
Greenland, Mich.—Harvey Chown.
Hatboro, Mich.—Butterworth & Fretz.
Montrose, Colo.—E. H. Garret.
Nunda, N. Y.—Grimes & Walker.
New York, N. Y.—T. R. De Lacey Co.
Smithfield, N. C.—The Holt Hardware & Buggy Co.
Vicksburg, Miss.—The Vicksburg Hardware Co.
Wheeling, W. Va.—Thomas Morris.

CHANGES.

Madison Lake, Minn.—Davey & Meyer are succeeded by W. E. Davey.

Lunde, N. D.—Roshold Bros. are succeeded by the Roshold Implement Co.

Vermillion, S. D.—Halderson & Gunderson succeed Thomas Halderson.

Roanoke, Va.—Price-Ames Co. is succeeded by the Roanoke Hardware Co.

Athens, Tex.—Kidd & Spencer succeed W. M. Kidd.

Greensboro, N. C.—The Piedmont Iron Works have been purchased by G. T. Glasscock & Son.

Bell Buckle, Tenn.—Bomar Bros. succeed Wm. Ransom.

McComb City, Miss.—W. J. Guy succeeds R. C. Howell.

McEwen, Tenn.—N. L. Thedford succeeds J. E. Jones & Co.

Montgomery, Ala.—Teague, Barnett & Co. are succeeded by Teague & Sons.

Athens, Tex.—Eugene Spencer withdraws from the Miller, Carroll & Spencer hardware firm.

Ripley, Tenn.—Sanford & Crawford have been succeeded by C. F. Sanford.

Eldorado, Ark.—J. H. Mellor Hardware Co. succeeds A. A. Norris Hardware Co.

DeQueen, Ark.—B. Johnson & Co. succeed John & Brawner.

Clinton, Tenn.—Clinton Hardware Co. succeeds Groner, Gamble & Co.

Marl, Tex.—The Parmer Hardware Co. has been organized with a capital of $10,000 by C. L. Harmer and his associates.

Charlottesville, Vt.—J. P. Carroll has bought R. E. Yowell's interest in the hardware firm of Adams & Co.

Victor, Iowa.—Fred Schroeder succeeds J. C. Gridley.

Clarksburg, Ind.—T. Smith and John E. Russell succeed A. C. Burns.

Wichita, Kan.—The Musselman Bros.' store has been purchased by H. H. Hose, Mr. Musselman entering into partnership in the Hockaday Hardware Co.

Verona, Ill.—Geo. Smith & Bro. have bought the stock, building, etc., of Hough Bros., who will engage in business in Mason, having purchased the Woods Bros.' hardware and implement business there.

Auckley, Iowa.—Gus Maune has bought his partner's interest in the hardware store of Martin & Maune.

Bridgeton, Me.—Geo. Grisbee enters into partnership with John H. Roes in the hardware business.

Cooperstown, N. Y.—H. M.Hooker & Co. dissolve. H. M. Hooker sells his interest to the junior partner, D. J. McGown. Title remains the same.

Deadwood, S. D.—A. F. Bick succeeds E T Baltzley

East Liverpool, Ohio—J. N. Shives, of the Diamond Hardware Co., has sold his interest to M. L. Otterman and Henry Fowler.

Gilboa, N. Y.—Frank R. Thomas succeeds George Shaler.

Guthrie, Okla.—E. R. Peterson, of Henricks & Peterson Hardware Co., has sold his interest to E. A. Nehr. The new firm name will be Henricks & Nehr.

Jamestown, N. D.—R. L. Scott & Co. succeed Gieseler & Blewett.

New Cumberland, Pa.—D. Y. Lenhart will move the hardware stock of E. P. Conley to his store on Market street.

Newport, Vt.—L. A. Spaulding has bought half interest in the hardware business with F. W. Carr.

Osborne, Kan.—Roy Hewett has purchased the Buchner hardware store.

Presque Isle, Me.—The hardware firm of A. M. Smith and E. W. Fernald has dissolved, Mr. Smith continuing the business.

Revere, Mo.—L. M. Dawson sells his hardware store to C. Lucas, but retains half interest in the implement department.

Salem, S. D.—J. W. Ryan succeeds Ellis Bros.

STOPPAGES.

Rogers, Ark.—J. McFarlin & Co.
Dalton, Ga.—Gray, Baker & Co.
Blue Ridge, Ga.—Owenby & Palmer.
Georgetown, Tenn.—Geo. W. Marlen.
Morristown, Tenn.—Geo. E. Speck & Son.
West, Tex.—Fluellen Bros.

MISCELLANEOUS.

Rocky Ford, Colo.—The Dawley Hardware & Furniture Co., fire.

Bay City, Mich.—The Jennison Hardware Co. increased capital stock from $40,000 to $100,000.

Baldwinville, Mass.—H. H. Hammond is erecting an addition to his hardware store in order to accommodate his increasing trade.

Elizabeth City, N. C.—Sharber & White are moving into their new store on Main street.

Holland, N. Y.—W. J. Tabor enlarges.

Muskegon, Mich.—Karel & Dekker will erect a two-story brick block on Pine street.

Manchester, Va.—The B. P. Vaden Hardware Co. is building a handsome brick storehouse, which they will occupy as soon as completed.

North Vassalboro, Me.—George S. Hawes will build a storage depot for his hardware.

Piqua, Ohio.—D. N. Burr & Co. will erect an addition to their hardware store on Main street.

Paris, Tex.—H. S. Bettes Hardware Co. increases his capital stock from $50,000 to $125,000.

Bremond, Tex.—Webb Hearn, fire.

Bellows Falls, Vt.—Geo. B. Albee, fire. Loss, $1.000.

Dumont, Iowa.—H. Faltzhoff, fire. Partially insured.

Kindred, N. D.—C. J. Myher, fire. Partially insured.

Rocky Ford, Colo.—Dawley Hardware & Furniture Co., fire.

Stoutsville, Mo.—J. S. Walters, fire. Loss, $5,000. Insured.

Weatherford, Tex.—J. R. Lewis & Co., fire. Loss, $10,000; insurance, $3,600.

Bellwood, Neb.—C. D. Hudson, burglarized. Loss, $75.

Cumberland, Md.—Cumberland Hardware Co., burglarized. Loss, $50.

Essex Junction, Vt.—W. S. Teachout, burglarized. Loss, $40.

Gorham, N. Y.—Crozier hardware store, burglarized.

Milwaukee, Wis.—Charles Schmidt, 985 Howell avenue, burglarized. Loss, $82.

Van Buren, Ark.—G. R. Wood & Co., fire. Loss, pocket knives and pistols.

Winslow, Me.—Proctor-Bowie Co., fire. Loss, $30.

Roscommon, Mich.—W. B. Orcutt, fire. Loss, $6,000.

Union Mills, Ind.—Loomis, hardware store, fire.

Ashtabula, O.—Union hardware store, burglary.

Hannibal, Mo.—Hixson Hardware Co., burglary.

Oshkosh, Wis.—Tank & Tieman, burglary. Loss, $30.

Sharpsburg, Pa.—Vaught, Phillips & Co., burglary.

Heating and Ventilating.

The Wausau Plumbing, Heating & Electric Co., are a new Wausau, Wis., concern.

William M. Elliott, Carl S. Wise, Rufus Magee, Quincy A. Myers and John C. Nelson are the incorporators of the Logansport Hot Water & Heating Co., Logansport, Ind., capitalized at $25,000.

The New York Steam Heating Co. are having a legal battle with the Bridge Commissioners of that city, who wish to condemn its property for use as one of the piers for the Blackwell's Island bridge.

The Wireton Heating Co., 40 Dearborn St., Chicago, the well-known makers of the Quaker furnaces, are also agents for the Auer sidewall register, manufactured by the Auer Register Co., Toledo, Ohio, in the states of Iowa, Illinois, Minnesota and Missouri.

The Ideal Mfg. Co., Detroit Mich., were alert as entertainers during the annual meeting of the Central Supply Association, held in Detroit, June 17 and 18. This firm fitted rooms J and K of the Hotel Cadillac into a Turkish Den, and all who visited it agreed that it was an ideal Turkish joint.

The Schreiber & Conchar Mfg. Co., Dubuque, Ia., manufacture a complete line of registers, faces and borders which they are offering the trade at 75 per cent off. These registers are black japanned, white japanned, hand bronzed, nickel plated, brass plated, bronze plated, copper plated and old copper finish.

The Kewanee Boiler Company, Kewanee, Ill., with Chicago store at 167-169 E. Lake St., are makers of the popular "Tabasco" water heaters. These are all steel, self-feed, with shaking grate, and are designed for use in small residences, greenhouses, flats, hotels, baptisteries, bath houses, or any space where a supply of hot water is needed.

There are a large number of stove manufacturers who show their appreciation of the high quality of goods, prompt deliveries and attractive prices of the Atlas Bolt & Screw Co., Cleveland, O., by sending in their orders whenever in need of stove bolts, stove rods, machine screws, pointed pins, threaded wires, rivets, special bolts, mica bolts and cold pressed nuts.

The Hess-Snyder Co., Massillon, O., are manufacturers of a complete line of stoves, ranges and furnaces. Their Massillon hot air draft is a fine furnace for coal or wood or natural gas. In fact, natural gas and coal can be burned at the same time. The feed opening of this furnace is 13x18 inches, the height to the top of the casing is 6 feet 2 inches. Eight inches can be cut off of the casing hood, reducing the height to 5 feet 6 inches.

The Lennox Manufacturing Co., Marshalltown, Ia., are manufacturers of a complete line of furnaces. All their furnaces have a sectional cast iron fire pot, but the fire pot has no connection with the hot air chamber, being enclosed with a solid steel radiator. In the large furnaces there is a retort radiator. The fire pot and combustion chamber are enclosed with a single shell of mild steel, the body being a single plate one-eighth of an inch thick. In all these furnaces the heating surface is vertical and allows n oaccumulation of ashes and soot because it keeps dropping back into the fire.

The Forest City Foundry & Manufacturing Co., Cleveland, O., are manufacturers of the Monarch furnace. The ash pit in this furnace is deep and roomy, allowing for a large accumulation of ashes, and is so shaped that they may be readily removed. The grate is of triangular form and is very heavy. Should occasion require any of the bars can be removed without disturbing the others and without removing a bolt. The dust flue forms a connection between the ash pit and combustion chamber, and allows the light dust and ashes which are freed by the movement of the grate to rise into the furnace above the fire pot. The fire pot is of heavy weight and nearly straight. This pot is made in two sections.

A very desirable furnace for schools and churches is manufactured by the L. J. Mueller Mfg. Co., 191 Reed St., New York. In this furnace the products of combustion, after leaving the large fire box, sweep into lower flues on each side, connected to the fire box by heavy cast iron elbows, thence through cast iron tee connections into flues above before smoke pipe is reached. These flues give this furnace 56 feet of fire travel, which abstracts all the heat available from the fuel consumed. The fire box is also connected to large center flue by heavy east iron collar provided with damper, which, when open, makes direct connection with the smoke pipe. These furnaces are made throughout of heavy material and are carefully mounted. The body is made of two sheets of No. 8 boiler steel, with closely riveted joints.

The Boynton Furnace Co., 147-149 Lake St., Chicago, make a variety of steam and hot water heaters and furnaces. Their "Admiral" steam boiler, for hard or soft coal or natural gas, is this firm's latest production of the round fire box type of house heating boiler. Ninety per cent of the fire surface, it is claimed, is exposed directly to the action of the fire, and at the same time the products of combustion are retained in contact as long as they are useful. The self-contained diving flue is a factor. The water has a rapid and even circulation over all of the heated surfaces, and thus permits the quick generation of steam. A circulating connection is provided between the steam dome and water leg of the boiler, which prevents priming and maintains a steady water line. The construction is simple. The connections are made by means of cast iron push nipples, and the boiler can be set up in a very short time. It is fitted with triangular revolving grates, and the ash pit is so constructed that the grate complete can be withdrawn on a sliding track.

Bostick & Son have moved from Millington, Mich., to Lapeer, Mich., where they have a foundry 80x120 feet in dimensions, a molding and grinding room 50x 116 feet and a mounting shop 40x124 feet. They expect to have their goods in the sand by August 1st.

Tinshop.

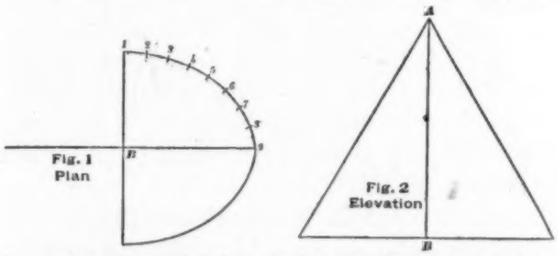
PATTERN FOR AN OVAL BASE.

TO THE AMERICAN ARTISAN.

An explanation for cutting a pattern for a cone with an oval base and round top, scientifically, is given herewith.

Fig. 1 is the plan, or ellipse; this we divide into equal spaces, not necessarily the entire circumference, as one-quarter is sufficient. These we number from 1 upward.

Fig. 2 is the elevation, which may be as high as



circumstances require, but the higher it is the less of the arc of blank will be taken up, and the lower the elevation the more will be required.

Fig. 3 is a triangle that is required. From *A'* to *B'* in Fig. 3 is equal to *A-B* Fig. 2, or elevation of cone. Line *B'*, Fig. 3, to *C* is extended indefinitely. We now set dividers at *B*, Fig. 1, and carry distances the number on circumference is located to line *B' C*, Fig. 3; and number correspondingly. Then the distance from *A'*,

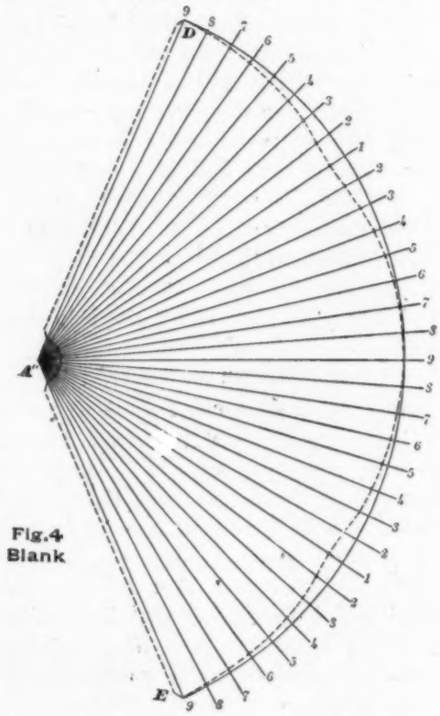
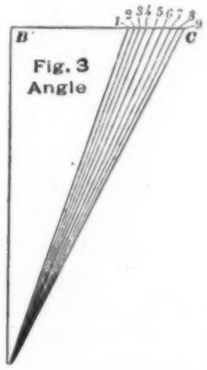


Fig. 3; to each of these numbers on line *B' C*, Fig. 3, equals the distance from apex of cone to base after being formed up.

Fig. 4, or blank, we find by setting dividers at *A'* and 9, Fig. 3, and with *A"* as a radius strike are *d e;* on this arc we space off as many spaces as we have in Fig. 1. If we have only one-quarter of Fig. 1 spaced off, we space off the remaining three-fourths of blank, and number accordingly (see Fig. 4); then we carry each line numbered from 1 to 9, in Fig. 3, to corresponding numbers in Fig. 4, using *A'*, Fig. 3, and *A"*, Fig. 4, as radii. Then by tracing through each of these lines at points of



cutting, we have the pattern in its entirety. Should the cone be a large one, of necessity we should be obliged to divide our blank into two or four pieces; if the latter, and we have already spaced our plan only one-fourth, then the same number of spaces need only be observed in blank. "SOUTH SIDER."

Chicago, June 10, 1901.

CARE OF A TINNERS' FIRE POT.

BY J. E. LAMBERT, OF CLAYTON-LAMBERT MFG. CO. DETROIT, MICH.

LESS HORRIFYING THAN PAINTED.

No doubt many of the readers of THE AMERICAN ARTISAN have read reports of alleged gasolene explosions in which much damage is done, and one would expect, if a visit was paid to the spot or place where the explosion occurred, to find a wreck covering acres of ground. On the contrary, in the majority of cases, little or no damage was done, and the fire pot or torch you expected to find in fragments is usually all there, possibly being used; or, at the worst, all the damage done is that the seams of the tank may be unsoldered by heat.

THE RESULT OF CARELESSNESS.

If you investigate you will find that the cause of the trouble was the carelessness of the user. Many times the burner is opened to fill the drip cup, the gasolene lighted, and the user walks away leaving the gasolene running. The result is that the gasolene will run faster than it burns, and if attention is not given it will overflow the drip cup, run down over the tank onto the floor or bench, making a big blaze. About this time the careless user puts in an appearance and immediately decides that the fire pot has exploded. Now the danger to the user comes in. If he is cool and will simply shut the needle he so carelessly left open, push the fire pot a few inches out of the fire, (all of which he can do without singeing a hair) the gasolene will stop running and what little there is out burns up quickly and little damage will be done.

MISPLACED HEROISM.

If, however, the user gets heroic and proceeds to throw the fire outdoors, he usually succeeds in getting

a good burn—as the gasolene will probably get on his clothes. In many cases, if the fire was left alone all the damage it would do would be to unsolder all the seams of the tank and burn up the gasolene. Should it happen that anything inflammable was directly over the flame and close to it, no doubt it would burn; otherwise about all the damage done would be from the smoke, as gasolene don't burn down and won't set fire to a *flat* surface on which it is burning.

A TIMID USER.

The average user of a fire pot or torch is afraid of it, and don't understand the principles on which it is made, and if for any reason it don't work just as they think it should it is thrown outdoors or into the scrap, and that particular make is condemned and a different one ordered. All that is necessary to get good service out of a gasolene fire is to treat it right.

DON'T HIT IT WITH AN AXE.

It is impossible to make a gasolene fire pot or torch that will do first-class work for years without any attention. Even a wheelbarrow needs oiling occasionally, or you will hear from it.

There is no mystery about building gasolene fires; they all work on the same principle, although it may be applied a little differently.

CONSTRUCTION OF FIRE POT TANKS.

The tanks for all gasolene fire pots or torches are made to hold the gasolene, and must be constructed so that they will hold an air pressure, as air is used to force the gasolene up to the burner. If the tank leaks air the fire will not work good and it will be necessary to pump it up often. The tanks are usually supplied with an opening for filling; some kind of pump or bulb for putting in the air pressure, and a supply pipe that carries gasolene from the bottom of the tank to the burner. When the fire pot or torch is right side up, the air pressure forces the gasolene up this supply pipe to feed the burner. If the air pressure escapes, the gasolene will gradually fall back out of the pipe and the fire will go out. *Remember* that with nearly all burners the heavier the air pressure is the better the fire will be.

THE BURNER.

Now about the burner. All gasolene burners depend upon heat to make the gas they burn. It is therefore necessary to heat the burner first when starting a fire. This is usually done by burning gasolene in the drip cup provided for that purpose. The burner on any gasolene fire gets dirty from sediment formed by heating gasolene, and if this sediment is not removed the veins of the burner gradually fill up and finally the burner won't work. Nearly all burners are fitted with clean out plugs so that they may be easily cleaned.

Examine your fire pot or torch carefully; try to understand how it is made and the object in having everything just as it is; don't be afraid of it.

IF YOUR FIRE POT OR TORCH DON'T WORK.

First see that the tank is nearly full of gasolene and then screw the filler plug tight. If the washer is old or worn replace with new made of leather, (never use rubber) or if leather is not handy take a piece of cotton string and soap it, using the soap as you would wax in waxing a thread. Then wind the string to the right so that when the plug is screwed to place it will tighten the string. See that there is no leak around the pump collar; if this washer is old renew as described above. Now see that the pump works right. All air pumps need oiling often as they heat in use and this dries the cup leathers. A dry cup leather means a poor pump; therefore oil pump often. A few drops at a time and often will make a pump last many years. After pumping in a good heavy pressure of air, and before trying to light the fire, turn it upside down; this brings the gasolene in the top part of the tank, and should there be a leak you will soon find it. If it leaks repair it. *A leaky tank means a poor fire.* If the tank is tight turn the fire right side up, and if the burner is mounted on a swivel, see that it is in position so that the gasolene will fill the drip cup and also stand in the iron plate under the flat part of the burner. If the burner is rigid it will be in the right shape.

FILLING THE DRIP CUP.

To fill the drip cup open needle point slightly and when full close the needle point. Light with match and let burn out, then open needle point. Light with match and let burn out, then open needle a little and light again, letting it burn low until burner is thoroughly hot. Then you should have a good flame that will do good work. If the burner smokes or does not give a blast when the tank is tight and the air pressure good, it will indicate that the burner is dirty and needs cleaning. To do this, take the burner and swivel off the fire pot and take out all clean out plugs. (If they stick tap them lightly with a hammer and they will unscrew easily.) After forcing out all dirt with a fine wire wash the burner in gasolene; soap the plugs and screw them to place. *Don't take the swivel apart.* Remove the wire strainer cloth from little end of swivel, (the best way to do this is with a small drill) and replace it with new made of No. 60 strainer cloth rolled up tight and forced into the hole. This keeps out lint and dirt, saves cleaning burner as often as would be necessary if it were not used, and it also helps vaporize the gasolene.

TANK MUST BE AIR TIGHT.

Remember the gasolene tank must be air tight; the filler plug and pump must be screwed down so air does not escape; the pump must be oiled often and a good pressure of air put in the tank; the burner must be kept clean. Use leather or cotton string for washers. *Don't use rubber*—gasolene dissolves it. Use 74 degrees stove gasolene and be sure that the measures or cans in which it is handled are used for nothing else. *A teaspoonful of kerosene, or any oil or paint, would ruin* a gallon of gasolene, as it would quickly clog burners.

NO TINNER SHOULD BE WITHOUT ONE.

J. N. Forbes, Elgin man, writes, June 10th, 1901: "The Tinsmiths' Pattern Manual to hand, and must say I am highly pleased with it, and no tinner should be without one."

OUR EXPORT TRADE IN TIN PLATES.

American manufacturers of tin plate are making rapid gains in their attempt to enter the foreign markets of the world. To be sure, their exports are yet small as compared with the domestic demand which they are meeting, but they are again reducing the imports, which temporarily increased in 1900 under the excessive demand and extremely high price of materials, and are at the same time increasing their exports in a manner which proves interesting to those who have watched the development of this comparatively new industry in the United States. The figures of the Treasury Bureau of Statistics show that the exports of tin plates from the United States, which in the ten months ending with April, 1899, amounted to only 183,955 pounds, and in the ten months ending with April, 1900, to 275,990 pounds, were, in the ten months ending with April, 1901, 1,306,100 pounds. In imports of tin plates the figures for the ten months show a material decrease as compared with the quantity imported during the same period of the preceding fiscal year, being 98,609,722 pounds, as compared with 123,598,773 pounds for the ten months' period of last year.

Our total exportations of tin plate in the fiscal year 1901 seem likely to be from eight to ten times those of 1899, while the importations of tin plates into the United States promise to be little more than one-tenth those of 1891, the year of the largest importation of tin plates into the United States, and but about one-fifth of the average annual importation during the five years prior to the establishment of the tin plate industry in the United States.

The record of tin plate prices during the past two years shows a remarkable fluctuation, largely due to the unusually high price of material in 1900. Quotations for tin plates furnished to the treasury bureau of statistics show the price per box of 100 pounds of tin plates of Bessemer steel in New York in April, 1901, as $4.20, the uniform price since January 1, 1901; in January, 1900, the price was $5.50, while in January, 1898, it was $3.80. Meantime the price of Straits tin used in manufacture of tin plate has increased from 13.82c per pound in January, 1898, to 34.62c in July, 1900, and thence downward to 26.2c on April 19, 1901, and again advancing to 28.15c on June 1, 1901; while steel billets increased in price from $15 per ton in January, 1898, to $35 per ton in January, 1900, since which date the price has fluctuated considerably, finally becoming practically stationary at $28 per ton in March, 1901.

The following table, from the annual report of the American Iron & Steel Association, shows the production of tin plates and terne plates in the United States during each calendar year from 1892 to 1900:

Year.	Long Tons.
1892	18,303
1893	55,182
1894	74,260
1895	113,666
1896	160,362
1897	256,598
1898	326,915
1899	360,875
1900	302,655

The following table shows the imports of tin plates into the United States in each calendar year from 1890 to 1900:

Year.	Tons.	Dollars.
1890	329,435	23,670,158
1891	327,882	25,900,305
1892	268,472	17,102,487
1893	253,155	15,559,423
1894	215,068	12,053,167
1895	219,545	11,482,380
1896	119,171	6,140,161
1897	83,851	4,366,828
1898	66,775	3,311,658
1899	58,915	3,738,567
1900	60,318	4,617,813

The following table shows the exports of tin plates from the United States in the ten months ending with April, 1899, 1900 and 1901, respectively:

Ten months Ending April 30.	Quantity Exported. Pounds.
1899	183,955
1900	275,990
1901	1,306,100

BEST WORK ON PATTERN CUTTING.

Jay Commons, Aurora, Mo., writes: "I received the Tinsmiths' Pattern Manual and have read it through. I find it to be the best work on pattern cutting that I have ever had."

ADVANTAGES OF TIN ROOFING.

ROOF IS ESSENTIAL PART OF HOUSE.

Every one is more or less anxious to live under his own roof, but in spite of this desire most people in planning their houses pay less attention to the kind of roof that is to cover them, than to any other part of the house. This should not be. The roof is a very essential part of the house. It is the top, the cover, the protector of the rest of the building. It is far more exposed than the walls. When the roof is damaged, all the other parts are more or less affected, hence the advice, "Look well to the roof in erecting the house," cannot be too strongly impressed on the builder.

ROOFING TIN IS PRACTICALLY IMPERVIOUS.

When constructing the roof of a building the material used should always be of the best quality and of the most serviceable kind. Terne plates (roofing tin), of good trustworthy quality, are the ideal roofing material, embodying all the characteristics that are requisite for a perfect roof covering. Roofing tin is practically impervious to all the external and internal attacks to which a roof is exposed. Roofing tin will not freeze in cold weather, it will not get soft in the hot sun. It withstands the destructive ravages of a storm. It is noncombustible. The licking flames of a conflagration cannot feed on it. Roofing tin is light in weight and therefore adapted equally well for stone, brick or frame buildings. It does not absorb dampness. It will not break if a stone or the limb of a tree falls upon it. It is suitable for roofing under all possible conditions and from the flat to the steepest pitched roof. The greater

safety of a tin roof is well proved by the fact that the insurance rates on buildings covered with tin are less than on buildings covered with any other material. None of the many other materials which are offered for roofing purposes possess the universal advantage of tin roofing; the inflammable wooden shingle, the heavy and porous tile, the breakable slate, the dangerous paper, and the cheap gravel all possess disadvantages which are fully overcome by terne plates of good quality. A large majority of architects and builders strongly favor terne plates (roofing tin) as the best material for roofing, provided that they can be assured that the quality is first class and that good workmanship is employed in the construction.

CONDITIONS HAVE CHANGED.

With the establishment of the fact that a roof constructed of good terne plates is far superior to any other kind of roof, it must, nevertheless, not be overlooked that even a tin roof may, under certain circumstances, prove to be a bad one. There are two causes which may produce such a result; either the terne plates were bad, or the workmanship in laying the roof was not good. Some years ago, when a craze for cheap material had taken hold of the people, it was not unusual for large quantities of the most inferior material to be dumped on the market and used for roofing in order to reduce the cost. The evil results of this craze have made themselves apparent. The cheaply constructed roofs are decaying by reason of the false economy practiced in their construction. Proof is furnished that material higher in price and first class in quality would have been the cheapest. Fortunately conditions have changed again. The general prosperity of the country and the practical spirit which is animating the American public is now more than ever manifesting itself and the general demand is for materials of the highest grade.

FIRST PRIZE TO AMERICAN GOODS.

The American tin plate manufacturers, who in the short space of ten years have succeeded in building up a tin plate industry as large as, or even larger, than that of any other country in the world, are ever anxious to satisfy the demands of the people. American products in this line are admitted to be the most excellent the world over, which fact was recognized by the International Board of Judges of the "Exposition Universelle" at Paris, when they awarded to American tin and terne plates the first prize.

A SPECIAL STUDY OF ROOFING PLATE BUSINESS.

Anyone who desires to have a perfect roof can obtain it if he but goes to the trouble of making sure that he gets the proper quality of material, put down by experienced workmen. The American tin plate manufacturers, with their unequalled facilities in their vast resources and the best obtainable skill in the manufacture of terne plates at their command, have made a special study of the roofing plate branch of the business. The result is that today American tin plates stand preeminent. Different qualities of terne plates may be used in different districts. A quality of roofing plate suitable for one district may be totally unadapted for another district. But to meet all conditions terne plates are made today that will stand any climate. For a standing seam roof a poorer quality may be used than for a flat seam roof, but observing the truism that the best is the cheapest in the end, none but the best qualities should be used in all cases and, if this rule were adopted universally, all objections and prejudices which may exist in some localities against tin roofing would soon disappear.

BAD WORKMANSHIP.

Roofs made from good plates, however, may be spoiled by bad workmanship. To guard against this a few hints are given here, the observance of which is of the utmost importance in the proper construction of a tin roof.

FLAT SEAM ROOFS.

Roofs with less than one-third pitch are made with flat seams, and should preferably be covered with 14x20 sheets of roofing tin rather than with 20x28 sheets, because the larger number of seams stiffens the surface and helps to prevent buckles and rattling in stormy weather. For flat seam roofs one inch barbed and tinned roofing nails should be used, not over six inches apart, well under the edge. The nails must never be exposed.

STEEP TIN ROOFS.

Steep tin roofs should be made with standing seams, and from sheets 20x28 inches, fastened down with cleats, not over two feet apart. One end of the cleat is folded into the seam and the other nailed down. Nails should be driven in the cleats only.

LESSER COATING PERMISSIBLE ON STEEP ROOFS.

While it is always cheapest to use the best material, a lesser coating is permissable on steep standing seam roofs than for flat seam roofs with small pitch. IC roofing plates, in which the iron body weighs about 50 pounds per 100 square feet, are more suitable than IX plates, which weigh about 62½ pounds per square foot, because the seams in the lighter plates will not suffer as much from contraction and expansion as the thicker plates. The amount of terne coating on the lighter sheets should in all cases be fully as heavy as on the heavier plates.

For spouts, valleys and gutters heavily coated IX plates should always be used.

THE USE OF ACID.

The use of acid in soldering seams in a tin roof is to be carefully avoided; acid coming in contact with the bare iron on the cut edges and corners where the sheets are folded and seamed together will cause rusting. No other soldering flux than good rosin should be used.

ROOF SHOULD BE CLEANED.

Every roof should be carefully cleaned and all rosin spots and detrimental substances should be removed as the tinners' work is being finished. Lumps of rosin left on the roof will melt in the sun, stick to the roof, cause blisters in the paint, and prevent it from adhering.

For valleys, spouts and gutters of a tin roof no other metal than terne plates should be used, because the galvanic action produced by different metals coming in contact with each other will cause disintegration under atmospheric influences.

The sheeting boards underlying the roofing tin should be put close together. The wood should be well seasoned, dry, and all knots should be culled out. It is also advisable to cover the boards with good building paper before the tin is laid on. When no paper is used the tin must, in all cases, be painted before it is laid and fastened on the roof. The outside should receive two coats of paint as soon as the roof is finished.

To make tin roofs last for generations they should be repainted every three to five years with good iron oxide and linseed oil paint, while the frequency of the intervals will depend largely on the climatic conditions of the country.—Tin and Terne.

NOTES AND QUERIES.

BEVERIDGE STEAM COOKER.

From National Enameli g & Stamping Co., Milwaukee, Wis.

In response to query of Reader, Chicago, would state that our Chicago office, 66 North Canal street, can furnish a steam cooker similar to the Beveridge.

LIGHTNING RODS.

From Oscar Kvalshaug, Beresford, S. D.

Where can I buy lightning rods?

Ans.—Cole Bros., Inc., 412 S. 7th St., St. Louis, Mo.; Hum & Leatherman, Pittsburg, Pa.; A. F. Miller,

6616 7th St., St. Louis, Mo.; Reyburn, Hunter & Co., St. Louis, Mo.; E. G. Washburn & Co., 46 Cortlandt St., New York.

FLUX FOR SOLDERING ALUMINUM.

From A. E. Palmer, Waverly, Kan.

What flux should I use in soldering aluminum?

Ans.—Paraffine, stearin or vaseline.

AIR PUMPS.

From A. E. Palmer, Waverly, Kan.

Where can I buy air pumps?

Ans.—Barr Pumping Engine Co., 30 N. 7th St., Philadelphia, Pa.; Geo. F. Blake Mfg. Co., 93 Liberty St., New York; Blakeslee Mfg. Co., Du Quoin, Ill.; A. S. Cameron Steam Pump Works, New York; Clayton Air Compressor Works, 26 Cortlandt St., New York; Crosby Steam Gauge & Valve Co., Boston, Mass.; Dean Bros. Steam Pump Works, Indianapolis, Ind.; Epping-Carpenter Co., Pittsburg, Pa.; Fairbanks, Morse & Co., Chicago; Gilbert & Barker Mfg. Co., Springfield, Mass.; Guild & Garrison, Brooklyn, N. Y.; Laidlaw-Dunn-Gordon Co., Cincinnati, O.; Geo. F. Motter & Sons, York, Pa.; New York Air Brake Co., 66 Broadway, New York; P. H. & F. M. Roots & Co., Connersville, Ind.; Rumsey & Co., Ltd., Seneca Falls, N. Y.; Stilwell-Bierce & Smith-Vaile Co., Dayton, O.; Herman Strater & Sons, Boston, Mass.; F. C. Wells Steam Pump Works, 116 S. Clinton St., Chicago; Worthington Pumping Engine Co., 120 Liberty St., New York.

FITTINGS FOR LEAD AND IRON PIPE.

From Peerless Sifter Co., Warren, O.

Where can we procure fittings for attaching lead pipe to iron pipe without wiping the joints?

Ans.—New Haven Novelty Machine Co., New Haven, Conn.

ITEMS.

A new firm who will engage in the manufacture of enameled goods is found in the Ingram & Richardson Mfg. Co., Beaver Falls, Pa.

Wm. R. Ryan, Wm. P. Huxley and Wm. H. Stemmerman are the incorporators of the Passaic Metal Ware Co., 257 Main Ave., Passaic, N. J.

The Wage Committee of the American Tin Plate Co. and the Amalgamated Association of Iron, Steel and Tin Plate Workers are in session in Pittsburg this week.

Henry W. Stafford, Frank J. Ward and Chas. W. Carter are the incorporators of the Stafford & Ward Co., Jacksonville, Fla., capitalized at $5,000, for carrying on a general tinning business.

B. Hofeld, W. N. Head, C. Meyer and F. Hofeld are the incorporators of the H. & H. Mfg. Co., 554-562 West Twenty-fifth St., New York City. This firm are capitalized at $100,000, and will manufacture brass, copper and nickel plated household articles.

J. H. Eller & Co., Canton, O., send us a little price list of their metal ceilings, side walls, wainscoting, center pieces, etc. This firm also make a full line of cornices, skylights, finials, weathervanes, ventilators, as well as all forms of roofing and siding.

The National Enameling & Stamping Co., with branch offices at New York, Baltimore, Chicago, Milwaukee and St. Louis, make attractive prices on a great variety of staple goods, such as coal hods, elbows, stove pipe, drip pans, roast pans, spiders, griddles, National Acme fry pans, coal shovels, etc.

The American Tinware Mfg. Co. have been forced by the increase in their business to seek new and larger quarters. They have consequently abandoned their old quarters at 79 S. Jefferson St. and have removed to a more commodious location at 10-12 Fry St., Chicago, where they have better light, better mechanical equipment and more storage room.

The Canton Steel Roofing Co., Canton, Ohio, are leading manufacturers of eaves trough, conductor pipe, cornice, fire proof doors and shutters, skylights, hangers, tin plate, etc. This firm's steel ceilings and side walls afford absolute protection from fire, it is claimed. They are used in all kinds of buildings, stores, salesrooms, offices, churches, schools and residences.

Merchant & Co., Inc., Philadelphia, with Chicago office at 46 S. Clinton St., offer the trade high grade roofing and bright plates, Star ventilators, "Spanish" and graduated metal tiles, solders, Babbitt and type metals, bar lead and tin, galvanized and black sheet iron, sheet copper, sheet brass, sheet zinc, brass and copper and iron wire, brass and copper tubing and rods.

The Globe Ventilator Co., Troy, N. Y., send us some pink blotters which advertise their Globe ventilated ridging. This combines an ornamental cresting with a storm-proof ventilator, and is manufactured in copper and galvanized iron. The design is extensively specified and largely used. This ridging is simple in design, durable in composition, efficient in operation, symmetrical in appearance and snow-proof in construction.

Bertsch & Co., Cambridge City, Ind., have splendid facilities for the manufacture of machinery of all kinds. Their latest improved gap squaring shears, treadle or lever combined, or belt power for light or heavy work, is made in all sizes and eight different styles, for squaring, trimming and slitting, also cutting triangular or square holes. Their improved combined punch and shears is made in twelve sizes, 10 to 18-inch blades, also arranged for cutting triangular or square holes.

W. J. Burton & Co., Detroit, Mich., send us copies of their current stock lists of tin plate and galvanized and black sheets, respectively, showing the large stock of these goods they now have on hand for quick shipments. Their list of galvanized and black sheets shows they have them in gauges from 30 down to 16 in various widths and 96 inch lengths. Their tin plates on hand include varying quantities of the following brands, viz.: "Eastlake," "Burton's Extra," "Excelsior Hand Coated," "Washington Old Style," "Burton's Old Style," "Burton's Old Process," "Otto" bright coke, and "Anna" bright charcoal. This firm are quick shippers of asphalt roofing, felt roofing, metallic roofing, roof paint, cornices, steel ceilings, store fronts, skylights, galvanized sheets, tin plate, solder, stove pipe iron, roofing paper, felt, conductor pipe, gutters, hoops and hangers.

ADVERTISERS INDEX

ALPHABETICAL LIST.

Acme Pattern Works..... 45
Acorn Brass Works..... 48
Adams Co..... 43
Aitchison, The Robert Perf'd Metal Co..... 46
American Cutlery Co..... 46
American Radiator Co..... 2
Amer. Stove Repair Co..... 45
Atkins, E. C. & Co..... 56
Atlas Bolt & Screw Co..... 1
Atlas Mfg. Co..... 1
Auld & Conger..... 58
B-B. Mfg Co..... 42
Barnett, G. & H. Co..... 1
Beckman Bros..... 44
Beckwith, Estate of P D..... 16
Benbow-Brammer Mfg. Co..... 44
Berger Bros. Co..... 52
Bergstrom Bros. & Co..... 11
Berger Mfg. Co..... 54
Blacklock Foundry Co..... 41
Blue Ridge Mining Co..... 41
Bommer Bros..... 1
Boynton Furnace Co..... 10
Brauer, A. G..... 45
Brammer, H. F. Mfg. Co..... 44
Brand Stove Co..... 11
Bridgeport Crucible Co..... 45
Buckeye Paint & Varnish Co..... 44
Burton, W. J. & Co..... 52
Byrnes, John..... 50
Canton Steel Roofing Co..... 54
Chicago House Wrecking Co..... 51
Childs, Chas. H..... 41
Clark Novelty Co..... 2
Clark, Quien & Morse..... 44
Clayton, Lambert Mfg. Co..... 46
Cleveland Stamping & Tool Co..... 44
Columbus Bolt Works..... 1
Connors, Wm..... 1
Cooney-Geiger..... 52
Cope, Geo. W. Pattern Works..... 45
Cortright Metal Roofing Co..... 55
Danielson Machine & Tool Co..... 55
Detroit Stove Works..... 14
Disston's Henry Sons..... 50
Dixon, Jos. Crucible Company..... 39
Doering, C & Son..... 53
East Bangor Consolidated Slate Co 53
Eclipse Stove Co..... 10
Ehrlich, John B..... 45
Eller, J. H. & Co..... 52
Enterprise Mfg. Co..... 50
Enterprise Stove Co..... 13
Ertel, Geo..... 41
Eureka Co..... 44
Fanner Mfg. Co..... 12
Farr Telephone & Con. Supply Co 41
Forest City Foundry Co..... 13
Fouts, C. C..... 47
Friedley & Voshardt..... 53
Fuller-Warren Co..... 6
Galesburg Cornice Works..... 46
Garry Iron and Steel Co..... 47
Gerock Bros..... 52
Globe Ventilator Co..... 1
Gobeille Pattern Works..... 45
Gray, G. L..... 53
Great Western Stove Rep. Wks..... 45
Harrington & King Perforating Co 56
Henry & Scheible..... 12
Hess-Snyder Co..... 9
Hoffman, Geo. W..... 2
Horrigan Supply Co..... 42
Howes, S. M. Co..... 11
Illinois Roofing & Supply Co..... 53
Independent Register Co..... 1
Indianapolis Pattern Works..... 41
Ironton Wood Mantel Co..... 43
Jenner, H. W. T..... 38
Joliet Stove Works..... 5
Keisey Furnace Co..... 2
Kewanee Boiler Co..... 2
Kimball Bros. Elevator Co..... 55
La Crosse Steel Roofing & Cor. Co. 53
Lalance & Grosjean Mfg. Co..... 48
Lane Bros..... 1
Lee, Glass Andreesen Hdw Co..... 47
Lawler Water Feed & Damper Regulator Co..... 47
Lennox Machine Co..... 14
Lufkin Rule Co..... 50
McClure & Co..... 56
Merchant & Co..... 40
Merkel, H..... 42
Mersfelder, W. L..... 45
Miller, Jas. A. & Bro..... 53
Millers Falls Co..... 43
Montgomery, R. R..... 46
Montross Metal Shingle Co..... 52
Mueller, L. J. Furnace Co..... 11
National Enameling & Stamping Co..... 49
Niagara Machine & Tool Works..... 55
Northrup, H. S..... 52
Old Dominion Iron & Nat'l Works 55
Osborn, J. M. & L. A..... 56
Peterson, A A. & Co..... 43
Peck, Hubert..... 38
Perkins, J. L. & Co..... 53
Peters Cartridge Co..... 47
Phila. Hdw. & Malleable Iron Wks 12
Pittsburgh Stove and Range Co..... 9
Plume & Atwood Mfg. Co..... 43
Portsmouth Stove & Range Co..... 8
Randleman Sons..... 44
Ringen Stove Co..... 3
Rochester Radiator Co..... 12
Rogers, S. L. & G H..... 49
Rubovits, Frank E..... 50
Schreiber & Conchar Mfg. Co..... 12
Schwab, R. & J. Co..... 13
Shipman Bradt & Co..... 41
Smith, Bradner & Co..... 52
Smith, Chas. Co..... 8
Smith & Hemenway Co..... 50
Sperry, D. R..... 43
Standard Chain Co..... 40
Standard Lighting Co..... 7
Stanley Rule & Level Co..... 50
Stevens Arms & Tool Co..... 56
Stuber & Kuck..... 45
Swaine, F. J..... 47
Taylor, N. & G. Co..... 56
Tinners' Machinery Supply Co..... 46
Townley, H. P..... 39-40
Utica Drop Forge & Tool Co..... 50
Van John Range Co..... 8
Weller, F. S..... 45
Welling Mfg. Co..... 46
White, Thomas..... 4
Willard, Wm. G..... 14
Zucker, Levett & Loeb..... 11

CLASSIFIED LIST.

Advertising Writers

Rubovits, Frank E..... 50
Townley, H. P..... 39-40

Architectural Sheet Metal Work.

Friedley & Voshardt..... 53
Gerock Bros..... 52

Awnings.

Canton Steel Roofing Co..... 54

Balers

Ertel, Geo..... 41

Brazing Forces.

Burton, W. J & Co..... 52

Building Paper.

Burton W. J. & Co..... 52
Smith, Bradner & Co..... 52

Can Openers.

Smith & Hemenway Co..... 50

Ceilings-Steel.

Berger Mfg. Co..... 54
Burton, W. J & Co..... 52
Canton Steel Roofing Co..... 54
Eller, J. H. & Co..... 52
Friedley & Voshardt..... 53
Garry Iron Roofing Co..... 53
Illinois Roofing & Supply Co..... 53
La Crosse Steel Roof & Cor. Co..... 53
Northrup, H. S..... 52

Cement.

Connors, Wm..... 1

Chimney Tops.

Berger Mfg. Co..... 54
Burton, W. J. & Co..... 52
Garry Iron & Steel Co..... 53
La Crosse Steel R.& C. Co..... 53

Conductor Strainers.

Burton, W. J. & Co..... 52
Canton Steel Roofing Co..... 54
Garry Iron & Steel Co..... 53
La Crosse Steel Roofing & Cor.Co 53

Cork Pullers.

Smith & Hemenway..... 50

Cornices.

Berger Mfg Co..... 54
Burton, W. J. & Co..... 52
Canton Steel Roofing Co..... 54
Garry Iron & Steel Roofing Co..... 53
La Crosse Roofing Co..... 53

Corrugated Arches.

Canton Steel Roofing Co..... 54

Cresting.

Canton Steel Roofing Co..... 54

Dampers

Adams Co., The..... 43
Howes, S. M. Co..... 11

Damper Regulators.

Lawler Water Feed & Damper Reg. Co..... 47

Door Hangers.

Lane Bros Co..... 1

Eave Troughs.

Berger Mfg. Co..... 54
Berger Bros..... 52
Burton, W. J. & Co..... 52
Canton Steel Roofing Co..... 54
Clark, Quien & Morse..... 47
Cooney, Geiger & Co..... 52
Garry Iron & Steel Roofing Co..... 53
Illinois Roofing & Supply Co..... 53
La Crosse Steel Roof. & Cor. Co..... 53
Miller, Jas. A. & Bro..... 53
Welling Mfg. Co..... 46

Elevators.

Kimball Bros..... 55

Files.

Barnett, G. & H. Co..... 1

Flue Stoppers.

Stuber & Kuck..... 45
Welling Mfg. Co..... 46

Fuel Economizers.

Burton, W. J & Co..... 52

Furnace Cement.

Connors, Wm..... 1

Furnace Pipe.

Osborn, J.M. & L. A..... 56

Furnaces—Tinners.

Clark Novelty Co..... 2
Clayton, Lambert & Co..... 46

Furnaces Warm Air.

Bergstrom Bros. & Co..... 11
Boynton Furnace Co..... 10
Brand Stove Co..... 11
Forest City Foundry Co..... 13
Hess-Snyder Co..... 9
Lenox Machine Co..... 14
Mueller, L. J. Furnace Co..... 11
Schwab, R. J. & Co..... 13

Glass Cutters.

Byrnes, John..... 50
Smith & Hemenway Co..... 50

Hammers.

Smith & Hemenway Co..... 50

Hatchets.

Smith & Hemenway Co..... 50

Hardware Specialties.

American Cutlery Co..... 46
Atkins, E. C & Co..... 56
Atlas Mfg. Co..... 1
Blacklock Foundry Co..... 45
Bommer Bros..... 1
Fouts, C. C..... 47
Galesburg Cornice Works..... 46
Lane Bros Co..... 1
Lee Glass, Andreesen Co..... 47
Lufkin Rule Co..... 50
Montgomery, R. R..... 46
Nat. Enameling & Stamping Co..... 49
Plume & Atwood Mfg. Co..... 43
Schreiber & Conchar Co..... 1
Sperry, D. R..... 43

Heaters—Hot Water and Steam

American Radiator Co..... 2
Kewanee Boiler Co..... 2
Smith, Chas..... 14

Hog Scrapers

Smith & Hemenway..... 50

Horse-Shoes.

Old Dominion Iron & Nail Works 55

Hose Coupling.

Clayton, Lambert Mfg. Co..... 46

House-Furnishing Goods.

Blacklock Foundry Co..... 41
Cleveland Stamping & Tool Co..... 44
Enterprise Mfg. Co..... 50
Lalance & Grosjean..... 48
National Enameling & Stamping Co..... 49
Sperry, D. R. & Co..... 43

Knife Sharpeners

Smith & Hemenway Co..... 50

Knives.

Smith & Hemenway Co..... 50

Lawn Sprinklers

Smith & Hemenway..... 50

Lemon Squeezers

Smith & Hemenway Co..... 50

Lights.

Acorn Brass Works..... 48

Mantels.

Ironton Wood Mantel Co..... 43

Metal Shingles

Burton, W. J. & Co..... 52
Cortright Metal Roofing Co..... 55
Garry Iron & Steel Roofing Co..... 53
La Crosse Steel Roof & Cor Co..... 53

Metals-Perforated.

Aitchison, The Robt Perf'd Metal Co..... 46
Harrington & King Perforating Co 56

Metallic Shutters.

Berger Mfg. Co..... 54
Burton & W. J. Co..... 52
Canton Steel Roofing Co..... 54
Garry Iron & Steel Roofing Co..... 53
La Crosse Steel Roof & Cor Co..... 53

Mica

Blue Ridge Mining Co..... 41

Mitre Boxes.

Smith & Hemenway Co..... 50

Nails.

Old Dominion Iron & Nail Works 55

Nail Pullers

Smith & Hemenway Co 50

Oil and Vapor Stoves.

Ringen Stove Co..... 3
Standard Lighting Co 7

Paints.

Burton, W. J. & Co..... 52
Canton Steel Roofing Co..... 54
Garry Iron & Steel Co..... 53
Dixon, Jos. Crucible Co 39
La Crosse Steel Roofing & Cor.Co. 53

Paper.

Burton, W. J. & Co..... 52
Smith, Bradner & Co..... 52
La Crosse Steel Roof & Cor. Co... 53

Patents.

Jenner, H. W. T..... 39
Peck, Hubert..... 39

Plating

Zucker, Levett & Loeb..... 11

Plyers and Nippers

Smith & Hemenway Co..... 50

Polish.

Buckeye Paint & Varnish Co..... 45
Hoffman, Geo. W..... 2

Pruning Shears

Smith & Hemenway..... 50

Pumps.

Beckman Bros..... 44

Radiators.

American Radiator Co..... 2
Rochester Radiator Co..... 12

Razor Strops.

Smith & Hemenway Co..... 50

Razors.

Smith & Hemenway Co..... 50
Utica Drop Forge & Tool Co 50

Registers.

Adams Co..... 43
Canton Steel Roofing Co..... 54
Henry & Scheible Co..... 12
Independent Register Co..... 1
Phila. Hdw. Malleable Iron Wks... 12
Schreiber & Conchar..... 12

Roofing.

Auld & Conger..... 53
Berger Mfg. Co..... 54
Burton, W. J. & Co..... 52
Canton Steel Roofing Co..... 54
Cortright Metal Roofing Co..... 55
East Bangor Consolidated Slate Co 53
Eller, J. H. & Co..... 52
Garry Iron & Steel Co..... 53
La Crosse Steel Roofing Co..... 48
Miller, Jas. A. & Bro..... 53
Montross Metal Shingle Co..... 53
Osborn, J. M. & L. A..... 56
Perkins, J. L. & Co..... 53
Taylor, N. & G. Co..... 56

Saws.

Atkins, E. C. & Co..... 56
Disston's Henry Sons..... 50

Saw Blades

Millers Falls Co..... 43

Saw Sets

Smith & Hemenway Co..... 50

Scales.

American Cutlery Co..... 46
Beckman Bros..... 43

Screw Drivers

Smith & Hemenway Co 50

Shears.

Smith & Hemenway Co..... 50

Siding.

Canton Steel Roofing Co..... 54

Sporting Goods.

Peters Cartridge Co..... 47
Stevens, J, Arms & Too Co..... 56

Skylights.

Burton, W. J. & Co..... 52
Canton Steel Roofing Co..... 54
Friedley & Voshardt 53
Garry Iron & Steel Co..... 53
La Crosse Steel Roof & Cor. Co.. 53

Silverplated Ware

Rogers, S. L. & G. H..... 49

Sprayers

Childs, Chas. H. & Co..... 41

Stove Bolts.

Atlas Bolt & Screw Co..... 1

Stove Casters.

Independent Register Co..... 1
Fanner Mfg Co..... 12

Stove Lining.

Connors, Wm..... 1
Bridgeport Crucible Co..... 45

Stove Patterns.

Acme Pattern Works..... 45
Cope, Geo. W. Pattern Works.... 45
Ehrlich, John B..... 45
Gobeille Pattern Works..... 45
Mersfelder, W. L..... 45
Weller, F. S..... 45

Stove Polish.

Dixon, Jos. Crucible Co..... 39
Hoffman, Geo. W 2

Stove Repairs.

Amer Stove Repair Works..... 45
Brauer, A. G..... 45
Great Western Stove Rep. Wks... 45

Stoves and Ranges.

Beckwith, Estate of P. D..... 16
Detroit Stove Works..... 14
Eclipse Stove Co..... 10
Enterprise Stove Co..... 13
Fuller-Warren Co..... 6
Hess, Snyder & Co..... 9
Indianapolis Pattern Works..... 41
Joliet Stove Works..... 5
Pittsburgh Stove & Range Co..... 9
Portsmouth Stove & Range Co..... 8
Ringen Stove Co..... 3
Van John Range Co..... 8
White, Thos. Stove Co..... 4
Willard, Wm. G..... 14

Stove Trimmings.

Atlas Bolt & Screw Co..... 1
Columbus Bolt Wks..... 1
Fanner Mfg. Co..... 12

Tape Measures.

Lufkin Rule Co..... 50

Telephones.

Farr Telephone & Con. Supply Co 46

Tinners' Tools and Supplies.

Berger Bros. Co..... 52
Danielson Machine & Tool Co.... 55
Gray, G. L..... 53
Lufkin Rule Co..... 50
Niagara Machine & Tool Works.. 55
Perkins, J. L..... 53
Stanley Rule & Level Co..... 50
Swaine, F. J. & Co..... 43
Tinners' Machinery Supply Co.... 46

Tinplate.

American Tin Plate Co..... 54
Burton, W. J. & Co..... 52
Canton Steel Roofing Co..... 53
Doering, C. & Son..... 53
Garry Iron & Steel Co..... 53
Illinois Roofing & Supply..... 53
La Crosse Steel Roof. & Cor. Co. 53
Merchant & Co..... 40
McClure & Co..... 56
Osborn, J. M. & L. A..... 56
Taylor, N. & G. Co..... 56

Tinware.

Cooney & Geiger..... 1
Enterprise Mfg. Co 50
National Enameling & Stamping Co..... 49

Tubing.

Canton Steel Roofing Co..... 54

Ventilators.

Berger Mfg. Co..... 54
Berger Bros. Co..... 52
Burton, W. J. & Co..... 52
Garry Iron & Steel Roofing Co.... 53
Globe Ventilating Co..... 1
La Crosse Steel Roof. & Cor. Co.. 53
Powers Bros..... 2

Wagons.

Shipman, Bradt & Co..... 41

Wall Scrapers

Smith & Hemenway..... 50

Washer Cutters

Smith & Hemenway Co..... 50

Washing Machines.

Benbow-Brammer Mfg Co..... 44
Brammer, H. F. Mfg. Co..... 44
Clark, Quien & Morse..... 44
Eureka Co..... 44
Randleman & Sons..... 44

Water Heaters

Smith, Chas..... 14

Water Works

Horrigan Supply Co..... 42

PRESIDENT LOUBET TO AMERICANS.

The first magazine article written by M. Loubet since he became president of the French Republic will appear in The Saturday Evening Post for July 13. This important paper, entitled "Young Men and the Republic," after touching upon our pleasant relations with the French Republic, continues with a significant reference to the attitude of France toward the other powers. The masterly summing up with which the article concludes is a fine expression of the strong republican spirit which reigns in France today.

GERMANY'S FOREIGN COMMERCE IN 1900.

Germany's foreign commerce during 1900, as compiled from tables published in the Reichs-Anzeiger, was as follows:

	1900.	1889.
Imports	$1,438,232,096	$1,376,503,464
Exports	1,131,119,058	1,039,681,342
Totals	$2,569,351,134	$2,416,184,806

By countries the trade in 1900 was:

	Imports.	Exports.
Great Britain	$200,077,318	$217,108,122
United States	242,941,832	104,637,414
Austria-Hungary	172,391,016	121,553,740
Russia	170,535,330	77,323,582
Totals	$785,945,496	$520,622,858

Germany's total imports from the four countries mentioned amounts to more than her imports from all the rest of the world, while her exports to these countries represent less than 50 per cent of her total export trade. The value of the exports to Russia in 1900 was considerably less than it was in the preceding year, being exceeded for 1900 by the value of the exports (amounting to $94,216,584) to the Netherlands. The United States is again at the head of the list as regards imports into Germany, the exports to that country, however, being, less than 50 per cent of the exports to Great Britain, putting the United States again in the second place as regards the total volume of foreign commerce. During the year 1900 both the import and export of precious metals decreased. Germany's trade with all her colonies and protectorates, with the Philippines, with nearly all the South American countries (except Chili) and with Mexico increased materially in 1900.

CINCINNATTI EXCURSION.

Via Monon Route. One fare for the round trip. Tickets on sale July 5-7, good returning to Aug. 31 by depositing with agent at Cincinnati. City ticket office, 232 Clark St., Chicago.

Trade Report.

BRADSTREETS' ON IRON AND STEEL SITUATION.

The editor of Bradstreets telegraphs us this advance report on the iron steel situation:

Iron and steel lose nothing in strength as the turn of the year approaches. Reports of activity in pig iron at the close of last week are confirmed, and Pittsburg advices are of sales of fully 75,000 tons of Bessemer pig and of considerable quantity of other iron. Foundry pig is reported in better call at some markets.

New demand for finished material is quiet as a whole, and mill production likewise shows a seasonable shrinkage, and manufacturers are still six to eight weeks behind in their orders.

Chicago reports some good orders for steel rails in the market, with $30 demanded where business has actually been consummated, at an advance of $2 on the week. Plates, bars and structural material are also firmer at that market. Builders' hardware is in enormous demand the country over, and wire and nails are especially scarce. There is even a better feeling in the southern pig iron market.

WIRE NAILS.

The long drawn out demand for wire nails continues. Carload lots are quoted at $2.45, and smaller lots are $2.55.

CUT NAILS.

The market for cut nails is steady. Small lots from stock are quoted at $2.35.

BARB WIRE.

In spite of the lateness of the season there has been no falling off in the demand for barb wire. Carload lots are quoted at $2.85 for painted, with smaller quantities at $2.95. Galvanized wire is $3.15 in carload lots, and $3.25 in smaller lots.

BINDER TWINE.

Binder twine is in heavy demand. Standard twine is quoted at 8c per lb. and manila at 9c per lb.

GLASS.

Glass prices are as follows: Smaller than car lots from store, 80 and 20 per cent off; carloads, 85 and 5 per cent.

WHITE LEAD IN OIL.

White lead in oil is in active demand. In lots of 500 lbs. and over it is 6½c per lb., and in lots of less than 500 lbs. it is 7c per lb.

LINSEED OIL.

Linseed oil has gone up 4c per gallon, the result, it is said, of the Standard Oil control of the property. City raw in lots of 5 barrels is 65c per gallon.

SPIRITS TURPENTINE.

Turpentine is higher owing to stronger southern local market. Southerns are 37 to 37½c per gallon, and machine made barrels are 37½c to 38c.

COPPER.

There is a very little demand, but prices are steady at 17c for lake and 16⅝c for electrolytic.

LEAD.

Demand was good and prices were firm and unchanged at 4⅜c per lb. in 50-ton lots. In St. Louis the market was quiet at 4.27½c to 4.35c, according to brand. The English market was stronger, soft Spanish advancing 1s 3d to £12 7s 6d per ton, while soft English was quoted at £12 15s.

SPELTER.

There was good business doing at 3.95c to 4c per lb. The market in St. Louis was nominal at 3.80c per lb. In London spelter was weak and 2s 6d per ton lower at £17 7s 6d per ton.

SHEETS.

Manufacturers are still confronted with the task of satisfying the urgent demands of consumers for prompter shipments. It may be said with truth, in no other line of finished product has there been so great a demand in proportion to the capacity of the mills as for sheets. As a result, owners of warehouses report that not in several years have they had so large a business as they have booked in the past six months. There is no disposition, however, to increase prices, and they remain as follows: No. 27 black, $3.40c to 3.50c, and galvanized 65 and 10 per cent from store and 70 per cent and 5 per cent from mill, Pittsburg.

BILLETS.

Steel billets are still scarce and high. Demand for most kinds of scrap material continues light, and consumers are working for a lower range of prices. At present there is some irregularity of values, but most holders are firm. Old steel rails are quiet. Sales are reported of several lots, amounting to about 800 tons at $15.50 to 16 per gross ton, delivered at mill. In old iron rails sales are reported of about 250 tons heavy section tees at $18.50, gross ton, delivered, f. o. b., cars at mill. Wrought scrap is quiet and prices are weak. For choice railroad scrap there is quite a good demand, and sales are reported at $18 to 19 per gross ton, delivered, f. o. b., cars at buyer's mill.

BARS.

There has been an improvement in buying in the past week, some large contracts having been booked. The buying comes from all branches of the manufacturing trade. Prices are firm at 1.55c to 1.60c for iron, and 1.60c to 1.65c for steel, with slight increase for prompt delivery.

Quotations.

METALS.

FIRST QUALITY BRIGHT PLATES.

			Per Box.
IC	10x14		$7 75
IX	10x14		9 50
IC	12x12		7 75
IX	12x12		9 50
IC	14x20		7 75
IX	14x20		9 50
IXX	14x20		10 00
IXXX	14x20		11 00
IXXXX	14x20		12 60
IC	20x28		15 50
IX	20x28		17 25
IXX	20x28		19 00
IXXX	20x28		20 75
IXXXX	20x28		22 50

COKE PLATES.

Cokes, 180 lbs	IC	20x28	9 70
Cokes, 200 lbs	IC	20x28	10 00
Cokes, 216 lbs	IC	20x28	10 30
Cokes, 216 lbs	IX	20x28	12 25

PIG IRON.

Lake Sup. Charcoal	$17 50@$18 00
Local Coke Fdy No. 1	16 00@ 16 50
Local Coke Fdy No. 2	15 50@ 16 00
Local Coke Fdy No. 3	15 00@ 15 50
Local Scotch Fdy No. 1	16 00@ 16 50
Local Scotch Fdy No. 2	15 50@ 16 00
Local Scotch Fdy No. 3	15 00@ 15 50
Southern Coke No. 1	15 15@ 15 65
Southern Coke No. 2	14 65@ 15 15
Southern Coke No. 3	14 15@ 14 65
Southern Coke No. 4	13 90@ 14 15
Southern No. 1 Soft	15 40@ 15 55
Southern No. 2 Soft	14 90@ 15 15
Southern Silveries	15 45@ 15 50
Jackson Co. Silveries	17 00@ 17 50
Ohio Strong Softeners	16 50@ 17 00
Alabama Car Wheel	21 00@ 22 05
Malleable Bessemer	16 00@ 17 00
Coke Bessemer	17 50@ 18 50

BLACK SHEET STEEL.

¼ in. 3-16 in. Nos. 8 and 10	per lb.	$3 40
No. 12	per lb.	3 45
No. 14	per lb.	3 50
No. 16 and 18	per lb.	3 55
No. 20, 22, 24, 25 and 26	per lb.	3 50
No. 27	per lb.	3 60
No. 28	per lb.	3 70

SMOOTH STEEL.

		per lb.
Wood's Smooth Steel,	15-17	$3 35
" " "	18	3 45
" " "	20	3 55
" " "	22-24	3 65
" " "	25-26	3 75
" " "	27	3 85
" " "	28	3 95

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON.

Galvanized Iron ..... 70% off

SOLDER.

Commercial 20c

SHEET ZINC.

600 lb. Casks, base ..... 7¼c per lb.

COPPER.

Copper ..... base, 21c

HARDWARE.

QUOTATIONS.

(The quotations given below represent the current hardware prices. They are not given as manufacturer's prices, and manufacturers should not be held responsible for them. Manufacturers sometimes name high figures than those quoted for goods; they are not always selling at the price quoted, but goods are being sold at the figures printed below by manufacturers and jobbers.)

ADZES—CARPENTERS'.

Hunt's	25%
White's	12½%
Coopers'—Barton's	12½%
White's	12½%
Ship—Barton's	12½%
White's	15%
Hunt's	25%

AGATE NICKEL STEEL WARE.

Agate Nickel Steel Ware ..... 35&10%

AMMUNITION

CAPS, PERCUSSION—per 1000—

F L Waterproof, 1-10s	50c
G D	40c
Eley's	52c

CARTRIDGES.

Peters Rim Fire Ctgs	50&3%
Peters Cent Fire, Pistol & Rifle	25&3%
Peters Cent Fire, Military and Sporting Ctgs	15&5%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.	
Peters Blank Ctgs. 22 cal	10&10%
Peters Blank Ctgs. 32 cal	10&10%
Peters B B Caps, Round ball	$1 18
Peters B B Caps, Conical ball	$1 90
U. M. C. Rim Fire Ctgs	50&3%
U.M.C. Cent. Fire, Pistol & Rifle	25&3%
Winchester Cent. Fire, Military and Sporting Ctgs	15&8%
U. M. C. Blank Ctgs. 22 & 32 cal	10%
U. M. C. Blank Ctgs. 38 cal	50-10-10%
U. M. C. B B Caps, Round Ball	$1 75..25&10%
U.M.C. B B Caps, Con. Ball	$2 00 net
U. M. C. Rim Fire Shot Ctgs	50&15&3%
U. M. C. Cent. " " "	25&10&3%

PRIMERS.

Berdan Primers	$1 00
Peters Primers	1 10
U. M. C. Primers	1 08
Winchester Primers	1 08

SHELLS.

Peters Empty Paper Shells, 10 and 12 gauge. League	25&5%
Peters Empty Paper Shells, 16 gauge. League	20&5%
Peters New Victor Nitro shells	15%
Ideal	33⅓&10%
Peters Loaded Shells. League and Semi Smokeless	40&5%
Peters New Victor Loaded Shells, with King's Smokeless	40&10&10%
Ideals Loaded with Kings Smokeless	40&10&10&5%
U. M. C, New Club, 16 guage	20&10%
U. M. C. New Club 10 & 12 gauge	33⅓&5%
U. M. C New Club	33⅓&5%
U. M. C. Nitro	18%
U. M. C. High Base	18%
U. M. C. Trap	33⅓&10&7%
Winchester Blue Rivals	20%
Winchester Yellow Rivals	20%
Winchester Repeater	18%
Winchester Leader	33⅓&10&7%
U. M. C. Loaded Shells. Black Powder	40&5%
Winchester Loaded Shells, Black Powder	40&5%
U. M. C. Smokeless	40&10&10&5%
Winchester Smokeless	40&10&10&5%

GUN WADS—per 1000.

Peters Gun Wads	20&5%
U. M. C. Gun Wads	20&5%

POWDER.

King's Quickshot Powder; Kegs $4 00; ½ kegs $2 25; ¼ kegs $1 25.

King's Semi-Smokeless	20&5%
King's Smokeless	25, 20&10%

Austin Quickshot Powder. Kegs $4 00; ½ kegs $2 25; ¼ kegs $1 25.

Dupont Smokeless, Sporting	25, 20&10&10c

SHOT.

Drop shot, sizes smaller than B, 25-lb bags, per bag	$1 35
Drop shot, B and larger sizes, 25-lb bags, per bag	1 60
Buck Shot, 25-lb bags, per bag	1 60
Chilled Shot, 25-lb bags, per bag	1 60

ANVILS.

Hay-Budden, 70 to 84 lbs	10c per lb
Hay-Budden, 85 to 150 lbs	9c per lb

AUGERS AND BITS.

Snell's Boring Mach. Augers	60&10&5%
Snell's Car Bits, 12-inch twist	40%
Jennings' Pattern Auger Bits	50&10%
Russell Jennings' Augers and Bits	25&10%
Ship Augers, L'Hommedieu Bits	15%
Irwin	50%
Climax Bits	60&10%

AWLS.

Brad, handled	per doz. $ 35
Brad, shouldered, assorted 1 to 4	per gr. 2 00
Brad, shouldered, assorted 1 to 6	per gr. 2 50
Peg, Pat	per gr. 60
Peg, shouldered	per gr. 1 00
No. 1, Scratch, handled	per gr. 4 80
No. 5, Scratch, socket	per doz. 6 00

AXES.

Lippincott	per doz	6 50
Mann	"	6 50
Second quality	"	6 00
Beveled axes, add	"	50
Broad—		
Peerless can patt	"	28 50
Hunt's		30
White's		12%
Hand—		
Hunt's		40
White's		18%
Ship—		
White's		12%

AXLES.

Common iron, long arm, sq. bed	5¼
Concord iron. long arm, sq. bed	6¼
Concord express, long arm, steel, square bed	6¾
Coach shape on above, ex. per. lb.	½
Short arms on above, extra per lb.	2
Welded axles on above, ex. per. lb	1½
Half Patent, steel, Nos. 7 to 14	70
Half Patent, steel, Nos. 19 to 22	70
Extra, coach shape, 1¼ & smaller	per set 15
Extra, coach shape, 1¼ 1½, per. set	30
Extra, coach shape, l'g'r, per. set	$1 00
National Wrought Steel Tubular, Self-Oiling—	
Standard Farm (1 to 5) and Special Farm (A1 to A5) less than ten sets	20%
Over ten sets	25

BEAMS—SCALE.

Scale Beams, List Jan. 12, 82	35%
Frary's	40%
P. S. & W	30%

BELLOWS.

Blacksmiths	70%
Hand, 6½ in	per doz. $4 50
Molders', 10 in	per doz. 9 00

BELLS.

COW.

Ordinary Goods	70&10%
High Grade	60&10%
Jersey	75&10%
Texas Star	50&10%

DOOR.

Abbe's Gong	45%
Barton Gong	55%
Home, R. & E. Mfg. Co.'s	55&10%
Lever and Pull, Sargent's	20&10&10%

HAND.

Hand Bells, Polished	60@60&10%
White Metal	55@55&10%
Nickel Plated	50@50&10%
Swiss	60%
Silver Chime	33⅓@33⅓&10%

MISCELLANEOUS.

Farm Bells	lb. 2¼ to 2½c
Steel Alloy, Church and School	50&10&5@60%
Wilmot & Hobbs Mfg. Co., Gongs	70%

BIT STOCK DRILLS.

Standard List ..... 60@60&5%

BLOCKS

Common Wooden	70%
Eddy Steel Tackle Blocks	66⅔&5%

BOLTS.

CARRIAGE, MACHINE, ETC.

Common, list Jan. 30, 95	65&10%
Norway Iron, $3.00, list Oct. 7, '84	75&10%
Bolt Ends, list Jan. 30, '95	50&10%
Machine, list Sept. 20, '99	65&10%

DOOR AND SHUTTER.

Ives' Patent Door	60%
Wrought Barrel, Standard list	70&10%
Wrought Flush	40&10%
Wrought Square, Standard list	65%

STOVE AND PLOW.

Plow	40&10%
Stove, list December 28, 1899	70to70&10%

TIRE

Common, list Dec. 28, '99	70
Eagle Philadelphia	72½%
Norway	75%

BORING MACHINES.

Jenning upright without Augers..$2

BOXWOOD RULES.

No. 4	$11 00	per doz
" 12	16 00	"
" 18	6 00	"
" 26	11 00	"
" 27	13 00	"
" 29	4 50	"
" 66	10 00	"
" 66½	10 00	"
" 67	6 00	"
Boxwood		80&10%
Ivory		40&10%
Lufkin's Steel		50&10%

BRACES.

Barber's	59&19%
Common Ball, American	$1 50
Fray's Genuine Spofford's	60%
Fray's No. 307 to 322	40&5%
Fray's No. 508 to 522	50%

BRACKETS.

Cast Iron Plain	50&10%
Wrought Steel	70&10@ 75%
Bradley's	75 @ 75&10%

BROILERS.

Wire Goods Co. 75%

BUTTS.

Bright Butts, Nos. 800, 802, 804, 806, 808, 810, 814, 816, 818, 820, 854	70%
Bright Butts, Nos. 826, 828, 829, 830, 832, 834, 836, 838, 840, 842, 843, 844, 845, 846, 848	70%
Bright Butts, Nos. 822, 822½, 823, 823½	70%
Japanned Butts, Nos. 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 726, 727, 728, 729, 730, 731	70%

CAGES—BIRD.

Enameled	40%
Brass 1200 series	33⅓%

CASTERS.

Bed	60&10&5%
Plate Casters	60&10&5%
Martin's Patent (Phoenix)	50&5%

CEMENT.

Asbestos Furnace Cement, 5 and 1 lb. Cans.
Per lb 5c

CHAIN.

American Coil, Cask lots:

3-16	¼	5-16	⅜	7-16	½	9-16
7.45	5.55	4.55	3.70	3.55	3.45	3.40

⅝ ¾ ⅞ to 1 1⅛ to 1¼ inch
3.40 3.35 3.35c. per lb. 3.60 per 100 lbs
Less than Cask lots add 25c.

German Coil, list July 24, '97	60&10&10%
German Halter Chain, list July 24, '97	60&10&10%

Traces, Western Standard: 100 pair

6½—6-3, Straight, with ring	$26.00
6½—6-2, Straight, with ring	27.00
6½—8-2, Straight, with ring	31.00
6½—10-2, Straight, with ring	34.50

Add 2c per pair for Hooks.
Twist Traces 2c. per pair higher than Straight Link.

Trace, Wagon and Fancy Chains Eastern list	60@60&5%
Jack Chain, lis July 10, '93:	
Iron	60@60&10%
Brass	60@60&10%

Safety Chain.....70@70&10%
Gal. Pump Chain.....lb. 4½@4¾c
Covert Sad. Works:
Breast, Hitching and Rein Chains.....50%
Covert Mfg. Co.:
Breast.....35&2%
Halter.....35&2%
Heel.....35&2%
Rein.....35&2%
Stallion.....35&2%
Oneida Community:
Eureka Coil and Halter...60@60&5%
Niagara Coil and Halters.60@60&5%
Niagara Cow Ties..45&5@45&10&5%
Am. Coil and Halters..50&10&5@60%
Am. Cow Ties.....35&5@40&5%
Wire Goods Co.:
Dog Chain.....60&10%
Universal Dbl-Jointed Chain 50%

CHALK.

Blue.....per gross 60c
Red..... " 50c
White..... " 45c

CHALK LINES.

Chalk lines.....per doz. $2 50

CHISELS.

Mix, Witherby.....70&5 to 70&10%

CHISELS.

Box.....20%
Tinners.....40%
Cold, per lb., regular qual.....20%
Cold, per lb., special qual.....32%
Corner.....662⅔%
Firmer, American..... 20, 10&10%
Barton's.....20%
Butcher's.....40&10%
Mortice. Butcher's.....40&10%
Socket, Firmer.....70%
Framing.....70%
Turning, Barton's.....20%
Butcher's.....50%
Beveled.....20%

CLAMPS.

No. 25 Adjustable.....50&10 to 60%
Carriage Makers.....50&10&5%

CLEANERS.

Pot.....per doz $1 10

CLEAVERS.

Beatty's.....dis 40
White's..... " 15

CLIPPERS.

E. H. Hotchkiss Horse Clippers
No. 10.....per doz $18 00
No. 30..... " 15 60
No. 22..... " 13 80
No 20..... " 13 20
No. 8..... " 10 80
H. Hotchkiss Toilet Clippers
No. 1.....per doz 9 60
No. 101..... " 10 80
No. 201..... " 10 80
No. 300..... " 13 20
No. 500..... " 15 00

COFFEE MILLS.

Enter. Mfg. Co., list Jan. 17, '93....25%
Parker's.....50&10%
Arcade.....60&10%

CORKSCREWS.

Howes..... 25 & 22%
Humason & Beckley..... 40 & 10%
Empire..... 40%
Walker's..... net
Williamson's Regular..... 40%
Williamson's Forged Worm 40%

DOG COLLARS.

Pope & Stevens' List!
Brass (full Assortment).....net price

DOOR CHECKS.

Blount.....30%
Eclipse.....30%
Corbin.....30%

DRILLS AND DRILL STOCK.

Common Blacksmith's Drill .....$1 50@$1 60
Bench Drills, Stearns' .... 5 50& 6 00
Blacksmith's Self-feeding, each, ...$5 00&$7 00
Breast, Millers Falls, each... $3 00 20%
Godell Automatic Drills, $12 00to$15 00

EGG BEATERS.

Standard Co.:
No. 5 Steel Handle Dover per gross.....$ 6 50
No. 10 Cast Handle Dover pr gr 8 00
No. 10 Steel H'ndle Dov'r pr gr 8 00
No. 15 Extra Heavy Steel Handle per gr..... 15 00
Rival per gr..... 10 00
Taplin Mfg Co.:
No. 50 Small Family size pr gr 6 50
No. 100 Regular Fam size pr gr 8 00
No. 102 Regular Family size tinned pr gr..... 9 50
No. 150 Large Fam size pr gr.. 15 00
No. 152 Large Family size tinned pr gr..... 17 00
Lyon's Standard size per doz.. 1 75
Wonder (S. S. & Co.) per gr.... 7 50

FASTENERS, BLIND.

Zimmerman's.....50&10%

FAUCETS.

Standard Metal Key.....25%
B. & L. B. Co.
Redlich's Wood Faucets.
Red Cedar, Oak, Cherry, Cork Lined, Metal Key ..... Net Prices.
Self Measuring:
Enterprise, per doz. $36 00.....40%
Cork Lined.....70&5@70&10&5%
Metallic Key, Leather Lined .....70@70&10%
Red Cedar.....50@50&5%
B. & L. B. Co.:
West's Lock, Open and Shut Key.....50&10%
John Sommer's Peerless Tin Key..40%
" " Boss Tin Key 50%
" " Victor Metal Key .50&10%
" " Duplex Metal Key....60%
" " Diamond Lock..... 40%
" " I X L Cork Lined ...50%
" " Reliable " " ..50&10%
" " Common " " 70%
" " Chicago " " 60%
" " O K " " 50%
" " Perfection Cedar..... 40%
Star.....60@60&5%
Star, Metal Plug new list... 40@40&5%
Lockport, Metal Plug, reduced list.....60&5%
McKenna, Brass:
Burglar Proof, N. P.....35%
Improved, ¾ and ⅞ inch.....35%
Self Measuring:
Enterprise, per doz $36.00.....40%
Lane's, per doz. $36.00.....40&10%
National Measuring, per doz $36.00.....40%

FILES—Domestic.

New List, Nov. 1, '99:
Black Diamond.....70&10%
Disston's.....75& 5%

Imported.

Stubs list.....5%

FORKS AND HOES.

Coke and Cottonseed Forks....40&5%
Coal Forks.....40&5%
Barn or Ice Forks.....40&5%
Beet Forks.....30&10
Ballast or Stone Forks.....40&5%
Tanners' Forks.....40&5%
Shaving Forks.....40&5%
Potato Scoop Forks.....40%
Oyster Forks.....40&5%
Sluice Forks.....40&5%
Heavy Mill, Manure or Street Forks.....70%
Steel Tar or Asphalt Rakes.....65%
Asphalt Hoes.....65%
Two Tine Hay Forks, Std. Size...65%
3 Tine Hay Forks, Std. Size..60&16⅔%
Four Tine Hay Fork, Std. Size 66⅔%
Socket Four Tine Hay Forks..66⅔&5%
Socket Four Tine Manure Forks...70%
Socket Four Tine Spading Forks .....70&5&5&2½%
Three Tine Hay Header and Baler Forks.....67½&2½%
Four Tine Hay Header and Baler Forks.....66⅔%
Grain or Barley Forks.....70&6%
Four Tine Manure Forks.....70%
Five & Six Tine Manure Forks.....70%
Spading Forks.....70&2½%
Potato Digging Forks.....65%
Stone Picking Forks.....65%
Garden Hoes.....75%
Meadow and R. I. Hoes...75&5&2½%
Sunbeam Meadow Hoes.....75&5&½%
Mortar and Street Hoes.....75&2%
Planter Hoes, Regular Pattern.70&30%
Tobacco Hoes.....75&20%
Cotton Hoes.....70&10&10&5&2%
Rough Fin. Shank Cot. Hoes 75&12½%
Cotton Chopper Hoes....75&10&7½%
Ladies' Cotton Hoes.....75&10&7½%
Malleable Rakes... .....70@70&10%
Toy Ladies' and Boys' Hoes.....70&10to70&10&5%
Weeding Hoes and Rakes...70@70&5%
Potato Hooks.....65to65&10%
Hop Hooks.....60&10&2½%
Steel Garden Rakes.....70&2%
Steel Garden Rakes Stamped blank 70%
Turf Edgers.....60&5%
Steel Road Rakes..... 65%
Special Mortar Hoes.....40&10&2½%
Harpers' No. 7 Mortar Hoes.... ..65%
Truck Hoes.....50&10&2%
Hoes.....65%
Special Hoes.....75& '0&2%
Hoe Down Hooks.....75&10&2%
Warren Hoes.....50&10&7½%
Laid Steel Edge Hoes.....25, 5&2%

GAUGES.

Marking, Mortise, etc.....60%
Stanley R. & L. Co.'s Butt & Rabbet Gauge.....Net
S. & H. Cos.....75%

GIMLETS.

Gimlets.....60%

GLASS CUTTERS

Woodward.....33⅓&10%
Red Devil.....33⅓&10%

GLUE POTS.

Tinned.....30%
Enameled.....35%

GLUE.

Martin's Liquid, List....33⅓% off List
Martin's Liquid, List....33⅓% off List
Martin's Liquid, List....33⅓% off List

GREASE, AXLE.

Fraser's.....Ne
Baum's Castorine.....Net

GRINDSTONE FIXTURES.

Stowell's..... Net
Reading Hardware Co.....Net

HAMMERS.

"Artisan's Choice" A. E. Nail.40&10%
Engineer's and B. S. Hand.....60%
Machinist's Hammers.....60%
Bell Face, A. E. Nail.....50
S. & H. Cos. No. 20 ....per gross. 5 25

HANDLES—IRON, WROUGHT OR CAST—DOOR OR THUMB.

No. 0.....per doz $0 90 } Dis
No. 1..... " 1 00 } :
No. 2..... " 1 18 } :
No. 3..... " 1 35 } :
No. 4..... " 1 50 } S
Bronze iron drop lat., per doz net $1 10
Japanned store door.....net 1 10
Barn door No. 5..... " 1 35
Chest and lift.....dis 50
Wood—
Saw and plane..... " 45
Hammer, hatchet, axe, etc.... " 45
Brad awl.....per gro. 45
Hickory firmer chisel..... } ..25
Apple firmer chisel..... }
Socket firmer chisel..... }
Socket framing chisel,..... }
File.....per gro. $2 80
Auger, assorted..... 5 00
Hoe, rake, shovel, etc..... 50
Cross Cut Saw—
Atkins' No. 1.....per pair 28
" No. 3 ..... " 18
" No. 6..... " 12
Triumph..... " 12
Common loop..... " 10

HANGERS.

Chicago Spring Butt Co.:
Friction.....25%
Oscillating.....25%
Big Twin.....25%
Cronk Hanger Co.:
Loose Axle.....60%
Roller Bearing.....60&10%
Lane Bros.:
Parlor, Ball Bearing $4.00
Parlor, Standard 3.25
Parlor, New Model 2.75
Parlor, New Champion..... 2.40
Barn Door, Standard .....60&10%
Covered .....50&10&10&5%
Special .....60&10%
Lawrence Bros.:
Advance.....60%
Cleveland .....60&10%
Crown.....60%
New York.....60%
Peerless .....60&10%
Sterling 60%
McKinney Mfg. Co:
No 2, Standard, $18.....60&10%
No. 1, Special, $13.....60&10%
Stowell Mfg. and Foundry Co.:
Acme Parlor Ball Bearing 40%
Atlas.....50&10%
Badger Barn Door.....50%
Baggage Car Door. 50%
Climax Anti-Friction 50%
Elevator.....40%
Express.....50%
Interstate .....50&10%
Lundy Parlor Door.....50%
Matchless..... ....50&10%
Nansen.....60&10%
Stowell Parlor Door 50%
Railroad 50%
Street Car Door 50%
Steel, Nos. 300, 404, 500.....40&15%
Wild West. 50%
Zenith for Wood Track 50%
Taylor & Boggis Foundry Co.:
Kidder's .....50@50&10%
Wilcox Mfg Co:
Bike Roller Bearing .....60&10%
C. J. Roller Bearing.....60&10%
Cycle Ball Bearing.....50%
Dwarf Ball Bearing.....40%
Ives, Wood Track.....60&10%
L. T Roller Bearing.....60&10&5%
New Era Roller Bearing .....50&10%
O. K. Roller Bearing .....60&10&5%
Prindle, Wood Track 60%
Richards' Wood Track 60%
Richards' Steel Track .....50&10%
Spencer Roller Bearing .....60&10%
Tandems, Nos. 1 and 2.....60%
Underwriters' Roller Bearing....40%
Wilcox Auditorium Ball Bearing 20%
Wilcox Barn Trolley No. 123 ....40%
Wilcox Fire Trolley, Roller Bearing 30%
Wilcox Le Roy Noiseless Ball Bearing 40%
Wilcox New Century ....50&10&10%
Wilcox Trolley Ball Bearing.....40%

HATCHETS.

American Axe and Tool Co., Blood's, Hunt's, Hurd's, Mann's, Underhill's, C. Hammond & Son., Fayette R. Plumb.... } 40&10%to40&10 &5%

HAY AND STRAW KNIVES.

Lightning.....$6 50&$7 00

HINGES.

BLIND AND SHUTTER.

Surface Gravity Locking Blind:
(Victor; National; 1868 O.P.; Niagara; Clark's O. P.; Clark's Tip; Buffalo.)
No.....1 3 5
Doz pair.....$0.75 1.45 2.90
Mortise Shutter:
(L. & P., O. S., Dixie &c.)
No.....1 1½ 2 2½
Doz. pair.... $0.60 55 52 45
Mortise Reversible Shutter, (Buffalo, &c.)
No.....1 1½ 2
Doz. pair.....$0.65 .60 .55
Parker.....70@.5%
North's Automatic Blind Fixtures, No 2, for Wood $9.00; No. 3, for Brick $11.50.....10%
Reading's Gravity.....75&10%
Sargent's, No. 1, 3, 5.....66⅔&10%
Sargent's Nos. 11 & 13.....70&10%
Wrightsville H'dware Co.:
O. S., Lull & Porter.....80&2½%
Acme, Lull & Porter.....75&10%
Queen City Reversible.....75&10%
Stenger's Positive Locking, Nos 1 & 3.....70&10&5%
Shepard's Noiseless, Nos. 60, 65, 55 70&10%
Niagara, Gravity Locking, Nos. 1, 3 & 5 .....75&7½%
1868, Old Pat'n. Nos. 1, 3 & 5 75&7½%
Tip Pat'n. Nos 1, 3 & 5.....75&7½%
Buff, Gravity Lock., 1, 3, 5..75&7½%
Shepard's Double Locking, Nos. 20 & 25.....70&10%
Champion Gravity Locking, No 75 75&7½%
Steamboat Gravity Locking, No 10 5&7½%
Pioneer, Nos 060, 45 & 5½..75&7½%
Empire, Nos. 101 & 103.....70&7½%
W. H. Co's Mortise Gravity Locking No. 2.....60&10%
Stanley's Steel Gravity Blind Hinges, per doz. sets $1.30.....30&10%

GATE.

Clark's or Shepard's—Doz. sets:
No.....1 2 3
Hinges with Latches $1.90 2.50 3.85

Hinges only.....1.30 1.90 2.90
Latches only..... 65 65 95
New England:
With Latch.....doz....@$1.55
Without Latch.....doz....@$1.25
Reversible Self-Closing:
With Latch.....doz....@$1.80
Without Latch.....doz ...@$1.45
Western:
With Latch .....doz $1.40@1 75
Without Latch.....doz. $0 95@1.30
Wrightsville H'dware Co.:
Shepard's or Clark's Nos. 1 & 2... 65&2½%
Shepard's or Clark's, No. 3...55&5%

SPRING

Ho'dback, Cast Iron, gros. $8.00@8.25
Non-Holdback, Cast Iron.... gro. $6.75@7.25
Extra 10% often given on most of these hinges.
J. Bardsley:
Bardsley's Patent Checking.....15%
Bommer Bros.:
Bommer's 33⅓%
Chicago Spring Butt Co.:
Chicago 20%
Floor Hinge.....40%
Garden City Engine House.....20%
Keene's Saloon Door 20%
Triple End.....40c
Hoffman Hinge & Foundry Co.:
No. 70 & 80 Holdback Detachable $8.50
Lawson Mfg. Co.:
Matchless 30%
Matchless Pivot.....35%
Pavson Mfg. Co.:
Oblique.....50&10%
Stover Mfg. Co.:
Ideal, No. 16, Detachable, per gr. $12.50
Ideal, No. 4 .....per gr. $9 00
New Idea No 1.....per gr. $9 00
New Idea, Double Acting.....45%

WROUGHT IRON

Strapand T Hinges, list Mar. 15, 1901:
Light Strap Hinges.....75%
Heavy Strap Hinges.....80%
Light T Hinges.....70%
Heavy T Hinges.....66⅔%
Extra Heavy Hinges.....75&10%
Hinge Hasps.....60%
Cor. Heavy Strap.....80%
Cor. Ex. Heavy T.....75&10%
Screw Hook and Strap:
6 to 12 in.....lb. 3¼c
14 to 20 in.....lb 3¼c
22 to 36 in.....lb. 3 c
Screw Hook and Eye:
¾ to 1 inch.....lb. 5c
⅝-inch.....lb. 6c
½-inch.....lb. 7c

MISCELLANEOUS—

Hoffman's Steel Spring Butt Hinges 40&10%
Hoffman's Offset Refrigerator Hinges 40&10%

HOLLOWWARE.

Stove Hollowware Ground.....50%
Maslin Kettles.....70&10%

HOOKS.

Picture, No. 299 .....&28c

BUSH HOOK.

No. 1, Underhill $9 00
Bird cage 40%
Clothes line .....60&10&10%
Grapling.....50%
Ceiling.....60&5%
Coat and Hat .....60&5%
Harness .....60&10&10%

WROUGHT IRON.

Cotton, V. & B.....25%
Tassel and picture.....50%
Wire, Coat and Hat, Gem.....net
Indestructible.....45%
Brass .....net $2 0 %
Hooks and eyes, bright wire....80&10%
Brass.....60&10&5
Fish hooks, American.....50%

HOSE—RUBBER.

Competition.....dis 70&10%
Standard 70%
Extra 60%
N. Y. Rubber Co.'s st'd.....50&10%
Banner.....60%
Extra.....50%

IRONS—SAD AND POLISHING.

Mrs. Potts' No. 50.....70c
Mrs. Potts' No. 55.....70c
Mrs. Potts' No. 60.....90c
Mrs. Potts' No. 65.....95c

KNIVES.

Standard List.....70&5%
Adjustable Handle.....25@33⅓%
Watrous.....30&10@40%
Cantelo's Folding.....25%
Improved Crown.....20%

KNOBS.

Base, 2½in. Birch Rubber tip ℔ gro.....$1 40
Door, Mineral.....℔ doz. 65c
Door, Por, Jap'd.....℔ doz. 75c

LADLES.

Reading.....Net
Sargent's.....Net

LANTERNS -TUBULAR.

No. 0 Berger's "Bail Lift," per doz. $9 50.....40&10%
No. 0, Berger's "Bail Lift," Galvanized, per doz. $10 50...40&10%
No. 2 Berger's "Bail Lift," per doz. $13 00.. .....40&10%
No. 2 Berger's "Cold Blast," per doz. $16 00.....40&10%
No. 0 Berger's Dash Board, Japaned. Plain Globe, per doz. $13 00.....40&10%
No. 0, Berger's Dash Board, Japanned, Bull's Eye, per doz. $13 50 .....40&10%
No 2, Berger's Dash Board, Japanned, Plain Globe, per doz. $17 00 .....40&10%
No. 2, Berger's Dash Board, Japanned, Bull's Eye, per doz. $17 50.....40&10%

BULL'S EYE POLICE.

2¾-in. flash light, per doz. $3 50@$3 75
3-in. flash light, per doz. ..4 00@ 4 25
4¾-in. regular, per doz.....3 50
3-in. regular, per doz.....3 57

LEMON SQUEEZERS.

Wood, Common, per gr., No. 0 $5 00; No. 1 $6 50; No. 2 $10 00.

Wood, Porcelain lined, No. 1.....per doz. $3 00@$3 50
Tinned Iron.....per doz. 1 25
Iron, Porcelain Lined, per doz.....3 25@ 3 50
Jenning's Star...per doz. 1 85@ 1 90
King.....per doz.

LOCKS.

Plate 33⅓%
Slaymaker-Barry Co.....30&35%
Sargent & Co.....40, 40&10%
Yale flat key.....net
L. & C, round key.....30&10%
Reading Harding Co.....40%
L & C. flat key latches .....33&10%
Stearns' sliding door....net $15 00

CABINET.

Eagle.....33⅓%
Yale.....33⅓%
Eagle and Corbin trunk.....25%

PADLOCKS.

Wilcock's.....70%
M. W. & Co.....70%
Russell & Irwin 70%
Slaymaker Barry Co.....40%
Bohannon's brass.....30%
Yale.....net
Eagle 33⅓%
Eureka, Eagle Lock Co 40%
Corbin.....33⅓&10%

MALLETS.

Fiber Head Sterns.....30&10%
Hickory.....40%
Lignumvitæ .....40&40&10%
Tinners', Hickory and Applewood, per doz. .....75c@$1 50

MATTOCKS.

Regular list.....70%

MOWERS, LAWN.

Cheap.....all sizes, $2 00@$2 10
Good.....all sizes, $2 50@$2 75
10 12 14 16-in
High Grade....4.25 4.50 4.75 5.00
Pennsylvania and Continental .....Net price
Genuine Philadelphia Mowers:
Styles M. S., C., K., T.....70&10%
Style A, (all steel).....60&10%
Style E, Low Wheel.....60&10%
Style E., High Wheel.....70&10&5%
Drexel, low list,.....60%
Gold Coins, low list.....60%
Dewey's.....Net prices
All Day .....Net prices

NAIL PULLERS.

Giant, No. 1..... per doz., $18 00. 40%
" No. 1½.... " 16 00. 40%
" No. 2..... " 15 00. 40%
Ajax.....Net prices.
Diamond B.....per doz., $ 9 00
Pipe.....per doz., 12 00
Eureka.....per doz., 10 00

NAIL SETS.

Octagon..... per gross, $8 00@$9 00
Round..... per gross, 8 00@ 9 00
Cannon's Diamond Point, per gross .....$9 00 Net

NUT CRACKERS.

Sargent's No. 12.....$1 50

OILERS.

Tin or Steel 50%
Zinc..... .....50&10&5 to 60%
Malleable Hammers 35%
Malleable Hammers, old pat., same list .....Net

PADLOCKS.

Sargent Dog Collar 70%
Sargent Wrought Steel and Brass..80%

PINCHERS.

Carpenters', wrt. iron, pol. steel jaws.....25%
Blacksmiths'.....40%
P. S. & W.....25%

PIPE.

WROUGHT.

List February, 1898.
1¼ and under, plain.....50&2½%
1½ and under, gal.....50&2½%
1½ and over, plain.....50&2½%
1½ and over, gal.....50&2½%
Boiler tubes.....50&2½%

PLANES.

Stanley Planes, No. 100.....$ 30 each
" " No. 130..... 25 each

PLIERS AND NIPPERS.

Swedish Side Cutting Pliers 40%
" End " " 40%
" Diagonal " " 40%
Halls Compound Nippers.....40%
U. D. F. & T. Co., all kinds.....Net

PLUMBS AND LEVELS.

Common.....75 to 75&5%
Disston's.....60%

POACHERS.

Buffalo Steam Egg No. 1, per doz. $7 20. 50%

POLISH.

POLISH—METAL.

U. S. Metal Polish Paste, 3 oz. boxes, per dozen, 50c; per gr. $4.50; ½lb boxes, per doz. $1.25; 1 lb boxes, per doz.....$ 2 25
U. S. Liquid, 8 oz. cans, per doz. $1.25; per gr.....12 00
Barkeepers' Friend Metal Polish, per doz. $1.75, per gr..... 18 00
Universal Paste, 3 oz. boxes.....60%
Burnishine Liquid 5 lb..... 16 00

POLISH—STOVE.

Dixon's .....per gross, $5 75
Dixon's Plumbago.....per lb 6½c

POPPERS, CORN.

Round or Square, 1 qt....per doz., 65%
Square, 1½ qt.....per doz., $1 00
Square, 2 qt.....per doz., 1 00

POST HOLE AUGERS AND DIGGERS.

Iwan's Patent Post Hole Auger....40%
Eureka Perfection Post Hole Digger, per doz.....$10 00
Atlas, per doz..... .... 8 25

POWDER.

IN CANISTERS.

Duck, 1 lb each.....45c
Fine Sporting, 1 lb each 75c
Rifle, 1 lb each..... .....$1 00

IN KEGS.

Duck, 6½ lb kegs.....$2 50
Rifle, 6¼ lb kegs..... ..... 1 25
Rifle, 12½ lb kegs..... 2 25
Rifle, 25 lb kegs..... ..... 4 00

PRESSES — FRUIT AND JELLY.

Enterprise Mfg. Co.....25%

PULLEYS.

Hay Fork, Svl, Sd Eye, doz $1 75@$2 75
Hot House, Awning, etc.....50%
Japanned Clothes Line 50%
Japanned Screw.....50&10%
Japanned Side..... .....50&10%
Sash (Auger Mortise):
Common Sense, 1¾ in ..per doz. 19c
Common Sense, 2 in per doz. 20c
Empire.... ....17c.; 2 in., 22c

SASH PULLEYS.

Fox No. 3 or No. 7, 2¼ wheel. .....25c per doz
Fox No. 9, 1¾ wheel .....20c per doz
Extra for plated Finish... 25c per doz
Extra for Anti-Friction Bronze Bushing.....10c per doz

RAZORS.

Fox Razors No. 42 ...per doz. $20
" " " 44.... " " 24 00
" " " 82..Platina " 24 00
Discount 40%
Rantankarus..... " 16 00

REGISTERS.

Black Japanned Registers, Ventilators, Faces and Borders, ...60 to 60&10%
White Japanned Registers, Ventilators and Faces.....50%
Bronzed Finishes in Imitation of Gold, Silver, Copper or Bronze .....40&10%
Nickelplated.....60%
Electro-Plated in Brass, Bronze, Copper or Oxidized Silver....40&10%
White Porcelain.....20%
Solid Brass and Bronze Metal.....20%

RIVETS AND BURRS.

Coppered Iron Rivets.....60&5%
Tinners Rivets.....60&5%

ROOFING SUPPLIES.

EAVE TROUGH.

"Perfection" Galvanized Eave Trough.....75&10%
"Eclipse" Galvanized Eave Trough.....75&10%
Double Bead Galvanized Slip Joint Eave Trough.....75&10%
Double Bead Galvanized Lap Joint Eave Trough.....75&10%

GUTTERS.

Roof Gutters, Galvanized.....7 &10%

PIPE.

Plain Round Pipe, Galvanized, Nested.....60&20&2½%
Plain Round Pipe, Galvanized, Unnested.....60&20%

VALLEYS.

Valleys, in Rolls, IC and IX Terne.70%
Valleys, in Sheets, IC and IX Terne.....70%

HOOKS.

Flashing Hooks 10%
Wrought Conductor Hooks.....60%

CUT-OFFS.

Kuehn's Galv.....60%
Acme Galv.....10&10%
Acme Tin.....60&10%
Centennial Tin.....20%

EAVE TROUGH HANGERS.

Eave Trough Hangers, Single and Double Bead, Imperial.....10%
Eave Trough Hangers, Single and Double Bead, Wire.....

ELBOWS.

One Piece Conductor Elbows, Galvanized, Corrugated..... 60%
Adjustable Elbows, Tin.....50%

PREPARED ROOFINGS.

Imperial 2-ply Tarred Roofing complete.....$1 75 per sq.
Imperial 3-ply Tarred Roofing, complete.....$2 00 per sq.

ROPE.

	Per lb.
Manilla, 7-16 inch diameter and larger	10½c " "
Manila, ⅜ in	10¼c " "
Manila, ¼ and 5-16 in	11½c " "
Sisal, 7-16 in. and larger	8c "
Sisal, ⅜ inch	9c "
Sisal, ¼ and 5-16 in	9c
Sisal, Medium Lath Yarn	10c

SASH CORD.

Braided, Drab.....lb 25c
Braided, White common..lb 17½@18c
Cable Laid Italian ....lb, A 18c, B 16c
Common India.....lb 9c@9½c
Cotton Sash Cord, twisted....12@16c
Patent Russia.....lb 12½@13c
Cable Laid Russia.....lb 13½@14c
India Hemp, braided.....lb 14@15c
India Hemp, twisted.....lb 10@12c
Patent India, twisted .....lb 10@12c
Pearl Braided, cotton .....lb 17@18c
Massachusetts, white.....lb 22½c
Massachusetts, drab.....lb 20½c
Eddystone Braided, cotton ....lb 19c
Harmony Cable Laid Italian....lb 18c
Ossawan Mills:
Crown, Solid Braided, white ..lb 18c
Braided, Giant, white.....lb 17c
Peerless:
Cable Laid Italian.....16c
Cable Laid Russian 14c
Cable Laid India..... 12c
Braided India.....18c
Phœnix, white.....19c
Samson:
Braided, Drab Cotton .....lb 32½c
Braided Italian Hemp.....lb 32½c
Braided, Linen.....lb 49c
Braided, White Cotton, Spot.lb.28½c
Silver Lake:
A quality, Drab, 40c.....15%
A quality, White, 35c.....15%
B quality, Drab, 35c.....15%
B quality, White, 30c.....15%
Italian Hemp, 40c.....15%
Linen, 57½c.....15%

SASH LOCKS.

Ives, Patent.....60@60&5%
Payson's Perfect.....Net
Payson's Signal (new list).....Net

SAWS.

Atkins' Circular.....Net
Atkins' Band.....Net
Atkins' Cross Cuts.....Net
Atkins' Mulay, Mill and Drag.....40%
Atkins' One-Man Saw.....Net
Atkins' Circular Solid and Inserted Tooth.....50%
Atkins' Bands over 2 in. wide.....60%
Atkins' Bands under 2 in. wide.57&10%
Atkins' Mill, Mulay and Drag.... 50%
Atkins' Cross Cuts..... 40%
Atkins' One Man.....40&10%
Atkins' Narrow Cross Cuts.....40%
Atkins' Wood Saws and Blades.40&10%
Atkins' Hand Saws.....40%
Atkins' Compass Saws.....50%
Atkins' Butcher Saws.....40&10%
Disston Circular Solid and Inserted Tooth.....50%
Disston Cross Cuts.....Net
Disston Narrow Cross Cuts.....Net
Disston, Mulay, Mill and Drag....40%
Disston Framed Woodsaws.....35%
Disston Woodsaw Blades.....40%
Disston Woodsaw Rods.....25%
Disston Handsaws, Nos. 12, 99, 9, 16, D100, D8, 120, 76, 77, 8.....25%
Disston Hand Saws, Nos. 7, 3.....30%
Disston Compass, Keyhole, etc....25%
Disston Butcher Saws and Blades.35%

SAW FILERS

Stearns'.....25%
Silent saw.....35%
Sargent's.....60&30%
Reading.....37½%

SCALES.

Family, Turnbull's .....30@30&10%
Hatch, Counter:
Platform, 4 lb. by ½ oz..doz...$5.75
2 Platforms, 8 lb. by ½ oz. doz $16 00
Union Platform, Plain.....$1.75@$2.00
Union Platform, Striped..$1.85@$2 15
Chatillon's Eureka.....25%
Chattilon's Favorite.....40%
Chatillon's Grocers' Trip Scales ..50%
Pelouze Scales, Household Counter, Confect, Postal, Ice, &c.....50%
"The Standard" Portables.....45%
"The Standard" R. R. and Wagon 50%

SCREWS.

BENCH AND HAND.

Bench, Iron.....per doz. 60%
Bench, Wood, Beech..per doz. $3 50
Hand, Wood.....50%

COACH, LAG AND HAND RAIL.

Coach and Lag, Gimlet Point, list Sept. 20, 1899.....75@75&10%
Hand Rail, list Jan. 1, 1871.....75%

JACK SCREWS.

Jack Screws.....70%

WOOD.

MANUFACTURERS' CIRCULAR PRICES.

New List.
Flat Head Iron 87½%
Round and Oval Head Iron.....85%
Flat Head Brass.....85%
Round and Oval Head Brass.....82½%
Flat Head Japanned.....82½%

SCYTHES.

Blood's.....$ 8 50
Clover..... 8 50
Grain Clipper, Blood's..... 10 50
Hollow Clip..... 8 50
Silver Clip 8 50
Honest Dutchman..... 8 50

SHEARS.

	7	8	9 in.
Best.....	$16.00	$18.00	$20.00 gro.
Good.....	13.00	15.00	17.00 gro
Cheap....	5.00	6.00	7.00 gro.

Straight Trimmers, &c.:
Best Quality Jap.....70@70&10%
" Nickel.....60@60&10%
Fair qual. Jap..... 80@80&5%
" Nickel .....75@75&10%
Tailors' Shears.....40@40&10%
Acme Cast Shears.....40@40&5%
Heinisch's Tailors' Shears. 40@40&5%
Wilkinson's Hedge 50%
Wilkinson's Sheep.....1900 list, 50%

SHINGLES, METALLIC.

Eastlake I. C. Tin Shingles, painted, pr sq.....$4 25
Eastlake I. C. Tin Shingles, galvanized, pr square.....$6 00
Octagon Fluted I. C. Tin Shingles, painted, per square..$5 50
Octagon Fluted I. C. Tin Shingles, galvanized. pr sq....$7 25

SIFTERS.

Eclipse.....per gr $15 00
Hunter's Genuine.....per gr $16 00

SKATE SHARPENERS.

Skate Sharp., Eureka, per doz $2 00 net
Washer Cutters, Woodard's per doz.....$2 50 net

SLATE.

GENUINE NO. 1 BANGOR.

24x14, 24x12, 12x 8	$3 50 pr sq.	20x10, 18x10, 18x 9, 16x 8	$4 50 pr sq
22x11, 20x12, 18x12, 16x12, 14x10, 14x 8, 14x 7	$3 75 per sq.	16x10, 16x 9	$4 25 pr sq
		12x 7, 12x 6	$3 25 pr sq

GENUINE NO. 1 BANGOR RIBBON.

24x14, 24x12	$3 00 pr sq.	20x10, 18x10, 18x 9, 16x10, 16x 8	$3 50 pr sq
22x11, 20x12, 14x 8, 14x 7	$3 25 pr sq.		

SNAPS.

German .....40@40&10%
Covert Mfg. Co.:
Derby.....35&2%
High Grade .....45@2%
Jockey.....40&2%
Trojan .....45&2%
Yankee.....35&2%
Yankee, Roller.....30&2%
Covert's Saddlery Works:
Banner .....60&10%
Crown.....60&10%
Model .....60&10%
Triumph .....60&10%
W. & E. T. Fitch Co.:
Bristol .....40&10%
Empire.....50&5%
German 40%
National .....50&5%
Perfect.....45%
Clipper.....50&5%
Champion.....40%
Security.....40%
Victor.....60&5%
Oneida Community:
Solid Steel.....65@65&10%
Solid Swivel.....65&10@65&10&10%
Sargent's Patent Guarded...66⅔&10%

SOLDERING FURNACES.

No. 3 Gems tin reservoir.....$6 00
No. 6 Gems copper reservoir..... 8 50
Gem Gas Pots..... 3 25
Clayton & Lambert No. 1 Fire-Pot 6 00
Clayton & Lambert's Special Fire-Pot..... 4 50

SPRINGS, DOOR.

Star (Coil) list Oct. '95.....net
Torrey's Rod 39 in. Per doz. .....$1 20@$1 25
Warner's No. 1.....net 75

SQUARES.

Steel and iron.....65, 10&5%
Nickel plated.....65, 10&5%
Try squares and bevels.....65, 10&5%
Disston's.....45%
Bemis and Call, pocket.....30%
Winterbottom's try & mitre.....30%
Starrett's.....25%

STAPLES.

Barbed Blind .....per lb , 10c
Poultry Netting.....per lb., 5c

STAPLE PULLERS.

Russell Staple Pullers..per doz., $9 00

STOVE PUTTY.

1, 10 & 25 pound Cans.....per lb., 5c
500 pound Kegs.....per lb., 4½c

STROPS.

RAZOR.

Emerson.....460 to 60&5%
Imitation.....20, 10&5%
Torrey's.....20%
Tower & Lamont.....per doz $4 00
04 Combination.....per doz 3 75

TACKS.

List Jan. 15, '99.
Carpet Tacks, American.....90&40%
American Cut Tacks.....90&30%
Swedes Iron Tacks.....90&40%
Swedes Upholsterers' Tacks.....90&40&10%
Gimp Tacks .....90&40&10%
Lace Tacks .....90&40&10%
Trimmers' Tacks.....90&30%
Looking Glass Tacks .....70&10%
Bill Posters' and Railroad Tack90&40%
Hungarian Nails.....80&15%
Common and Patent Brads....80&10%
Trunk and Clout Nails.....80&10%

TRAPS.

GAME.

Oneida Pattern .....75&5@75&10&5%
Newhouse.....45@50%
Hawley & Norton.....65@5&70%
Victor (Oneida Pattern) .. 75@75&10%
Star (Blake Pattern) ....65&10@70&5%

MOUSE AND RAT.

Mouse, Wood, Choker, doz. holes .....8½@9c
Mouse, Round or Square Wire, doz.....$0.85@1.00
American Pattern French Rat and Mouse Traps—
No. 1, Detroit Marty Pattern, per doz. $4.50; in ½ gro. lots, per doz $4.00
No. 2, Detroit Marty Pattern, per doz, $3.25; in ½ gro. lots, per doz.....$3.00
Detroit Marty Pattern Mouse, per doz. $2.00; in ½ gro. lots, per doz.....$1.75
Diamond Joe Mouse Traps, per doz.....60c
Diamond Joe Rat Traps, per doz.$1.00
Marty French Rat and Mouse Traps (Genuine:)

TWINE.

Flax Twine—

	BC	B
No. 9, ¼ and ½ lb. Balls...	20c	24c
No, 12, ¼ and ½ lb. Balls ...	17c	20c
No, 18, ¼ and ½ lb. Balls ...	14c	17c
No. 24, ¼ and ½ lb. Balls....	14c	17c
No. 36, ¼ and ½ lb. Balls...	13c	16c

Chalk Line, Cotton, ½ lb. Balls18@20c
Cotton Wrap., 5 lb. Balls to lb 16 to 20c
2-Ply Hemp, 1½ lb. Balls (Spring Twine) .....12@15c
3-Ply Hemp, 1 lb. Balls.....12@15c
3-Ply Hemp, 1½ lb. Balls .....
2, 3, 4 and 5-Ply Jute, ½ lb. Balls... 8c
Mason Line Linen, ½ lb. Balls 45c
No. 264 Mattress, ¼ and ½ lb. Balls 34c
Wool.....5½@6c

VISES.

Solid boxes.....40%
Parker's.....20%
Howard's.....35%
Bonney's.....35%
Trenton.....40%
Stearns'.....50%
Cheney's.....12½%
Massey's.....25%
Parallel.....30&5%
Holland's.....35%
Stevens'.....25%
Miller's Falls.....40%
Prentiss.....20%
No. 1, Rat each $1.12½; per doz. $12.00
No. 3, Rat, per doz. $6.00; case of 50.....$5.25doz
No. 3½, Rat, per doz $4.75; case of 72.....$4.25 doz.
No. 4, Mouse, per doz. $3.50; case of 72.....$2.75 doz.
No. 5, Mouse, per doz. $2.75, case of 72.....$2 25 doz.
Schuyler's Rat Killer, No. 1, per gro. $30.00; No. 2, per gro. $30.00; Mouse, No. 3, $18 00.....50%

FLY.

Balloon, Globe or Acme..... doz. $1.15@1.25; gro. ... $10.50@11.00
Harper, Champion or Paragon.... doz. $1.25@1.40; gro....$12.00@12.50

TROWELS.

Disston Brick and Pointing 30%
Disston Plastering.....25%
Disston "Standard Brand" and Garden Trowels.....40%
Never-Break Steel Garden Trowels..... gro. $7.00
Peace's Plastering.....30%
Rose Brick and Plastering..... 25&5%
Woodrough & McParlin, Pl'st'ring

WASHERS.

LEATHER, AXLE—

Solid.....80&10&10@85%
Patent.....85&10@85&20%
Coil: ⅜ 1 1⅛ 1¼ inch.
11c 12c 13c 15c per 100

IRON OR STEEL.

Size bolt 5-16 ⅜ ½ ⅝ ¾
Washers $5.20 $4 30 $3.00 $2.80 $2.60
In lots less than one keg add ¼c per lb; 5-lb boxes add ½c to list.

CAST WASHERS.

Over ½ inch, barrel lots per lb .....1⅛@1¼c

WELL WHEELS.

8-in., $1.65@$1.75; 10-in., $2.00@$2 10; 12-in., $2.50@$2.75; 14-in., $4 25@$4.40

WIRE AND WIRE GOODS.

Brt. and Ann., 6 to 9, 70&10@70&10&5%
Brt. and Ann., 10 to 18, 72½@72½&10%
Brt. and Ann., 19 to 26, 75&7½@75&10%
Brt. and Ann., 27 to 36.....75&10&5@75&10&7½%
Cop'd and Galv., 6 to 9, ...70@70&10%
Cop'd and Galv., 10 to 18..... 70&10@70&10&5%
Cop'd and Galv., 19 to 26..... 75&7½@75&10%
Cop'd and Galv., 27 to 36..... 75&10@75&10&5%
Tinned, 6 to 14.....75@75&5%
Tinned, 15 to 18 .....70&5@70&10%
Tinned. 19 to 26..... 70@70&5%
Tinned, 27 to 36.....65&10@70%
Annealed Wire on Spools..... 70&5@70&10%
Brass and Copper Wire on Spools .....60&5@60&10%
Brass, list Feb. 26, '96.....25%
Copper, list Feb. 26, '96.....15%
Cast Steel Wire.....50%
Stubs' Steel Wire, $6.00 to £.....40%

BRIGHT WIRE GOODS.

List April 1, 1901.....85@85&10%

WIRE CLOTH AND NETTING.

Galvanized Wire Netting....85@85&5
Ptd Screen Cloth per 100 ft $1.00@$1
Light Hardware Grade:
2-8 Mesh, Plain (8c list) sq ft... 1½c
2-8 Mesh, Galv. (8c list) sq ft....2½c

WRENCHES.

Agricultural.....70&10%
Case lots.....75&10%
Acme.....60&5%
Baxter's S.....60&10%
Bull Dog.....70%
Coe's Genuine.....40&10&5%
Coe's "Mechanic's"..40&10&10&5&5%
Alligator.....60&10&10%
Bemis & Call's:
Adjustable S.....35&5%
Adjustable S Pipe.....40%
Briggs' Pattern.....30&10%
Combination Black.....40&5%
Combination Bright.....40%
Cylinder or Gas Pipe.....55%
Extra Heavy.....45%
Merrick's Pattern.....50%
No. 3 Pipe, Bright.....55%
Bindley Automatic.....30%
Boardman's.....38½%
Donohue's Engineer.....40&10%
Eagle.....50&10%
Gem Pocket.....30%
Hercules.....70%
Knife Handle, Machinists' (W & B.): 0&10%
Case lots.....50&5%
Less than case lots.....6%
Improved Pipe (W. & B.).....50&10
Solid Handles, P. S. & W.....&10 &
Stevenson..... 56

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE, for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS.—H. W. T. JENNER, Patent attorney and mechanical expert, 608 F street, Washington, D. C. Established 1883. I make an examination free of charge and report if a patent can be had and exactly how much it will cost. Send for circular. Member of Patent Law Association.

PATENTS HUBERT E. PECK, 623 F St., N. W. Washington, D. C. Consulting Expert in Patent Causes, U.S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

For Sale—An established cornice, slate, tin roofing, furnace and steel ceiling business in Champaign, Illinois. Cornice brake new. Tinners' tools good. No bonus required. Reasons for selling, health will not permit owner to continue longer. Address, C. H. Russell, Champaign. Ill. 25

Wanted—Working partner, with from $500 to $1,000, in the tinning plumbing and heating business, practical man. Only shop in town. Population 2300, good country. Reference required and given. Address Lock Box 364, Stanley, Wisconsin. 24

For Sale—Clean stock of hardware and store in new town in northwestern Iowa, large territory, best corner in town. Splendid opening to run agriculture implements in connection. Cash only. Address Care Corner, THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 24

For Sale—A stock of hardware and stoves. We have stock of about $1,200 or $1,300, which we will sell for $1,000 cash. We have the finest tinners' tools in the city, also fixtures, wagons. We have no horse at present. A good stand for a hustler. Sickness is cause of selling. L. M. Matthews, 1850 Milwaukee Ave., Chicago, Ill. 24

For Sale—Tinshop, tools, stock and building, town 1,500 people, only one in place, 20 years established, doing $4,000 of business last season. Must be sold in the next 30 days. E. E. Edwards, Cerro Gordo, Ill. 24

TINNERS' TOOLS.

For Sale—30-inch P. S. & W. square shears, in good condition, $17.50. Barbour Hardware Co., E. St. Louis, Ill. 25

Wanted—A second-hand 8-foot Cornice Brake. Must be in first-class condition. Address, giving condition, price, etc , care P. O. Box 465, Erie, Pa. 25

For Sale—2 pair Hurlbut's double seaming roofing tongs, $12. 1 P. S. W. Folder, 104. Used only a short time, $27. Lots of other tools cheap. Graves Sheet Metal Works, Kansas City, Mo. 25

Tools for sale—An almost complete set of tinners' tools; list price $175; will cut off the $100 for cash; first call, first served. Address W. L. Eriksen, Joliet, Ill. 24

Wanted—30 inch squaring shears, second hand. Lees & Co., Two Harbors, Minn. 24

Wanted—A second hand 30-in. bar folder, must be in good shape: sent with privilege of examining. R. M. Bolinger, Florence, Ala. L. B. 383. 24

HELP WANTED.

Wanted—A good, honest hardware clerk, one who is not afraid of work; must be a good salesman and have some knowledge of window dressing. One that speaks German preferred. Steady job and fair salary to the right man. Address R. H. Suettinger, Two Rivers, Wis. 25

Wanted—At once, two firstclass tinners. General shop and galvanized iron work. Good wages. J. L. Clark Hardware Co., Rockford, Ill. 25

Wanted—A man or woman who can make clever water color sketches, to draw original designs for stoves, etc. Secondary position but chance for advancement if competent. If a modeler or woodcarver say so, and send sample sketch which will be returned. Previous experience in this line not absolutely necessary. Address, "Artistic," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 25

Salesman Wanted—For firstclass line of stoves and furnaces for western Iowa, for Kansas, for Nebraska. Practical men desired in each instance. Address "Box 22," care THE AMERICAN ARTISAN, 69 Dearborn St,, Chicago, Ill. 25

Wanted—At once, a tinner for roofing and spouting, mostly. Geo. L. Fisk, Ellisville, Ill. 25

Wanted—Five hardware salesmen on the road, first-class territory. Geo. W. Trout & Co., 174-176 Lake St., Chicago. 25

Wanted—Young man who has had experience in applying composition ornaments either on picture frames or patterns. State experience, wages wanted, and when you can be seen. Address, "Art Work," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 25

Wanted—A good all-around tinner; one who can do plumbing and hot water work preferred. Steady job all the year. H. D. A. Grebe, Barrington, Ill. 25

Wanted—At once: thoroughly good all-around tinner and furnace man. Fair treatment and good wages to capable man. Address, M. & P., Aurora, Ill., 19 So. Water St. 25

Wanted—At once: competent man in roofing, guttering, pumps. general repair, some knowledge of hot air and steam heating. Competent in use of pipe dies. Must be alert, sober, steady; good job to right man. Write at once, state wages. references. Skinner Bros., Forest, Ill. 25

Wanted—First class tinner and furnace man at once. Steady job to right man. C. J. Stark, Ortonville, Minn. 24

Wanted—A combination plumber and tinner, steady job and good wages. Address Box 159, Deer Lodge, Mont. 24

Wanted—Traveling salesmen who call on stove, hardware and housefurnishing dealers, to sell flat wire doormats. Popular prices and good selling side line. Ægis Mfg. Co., Marshalltown, Ia 24

Wanted—A good man in heating and plumbing, with knowledge enough of tin work to do roofing and spouting. W. T. Haggard, DeLand, Ill. 24

Wanted—A tinner with one year or more at the trade would do, also to help clerk in the store. Must be sober, industrious and honest. In answering state wages wanted, and if you can speak different languages. Address "J. P. F.," 1244 Main St., Green Bay, Wis. 24

Wanted—A young tinner, at once. State wages. Work year around year after year One that speaks German preferred. Steady job to right man. Address H. A. Brouillet, Lansing, Ia. 24

Wanted—Tinner. A young man who has just finished his trade preferred. Lees & Co., Two Harbors, Minn. 24

Wanted at once—A firstclass tinner, who can do all inside and outside work. State wages, experience and age. Must be sober. A steady job for the right man. A German preferred. Address John H. Haensgen, Fond du Lac, Wis. 24

Tinner Wanted—Steady job for right man. Powers & Williams, Streator, Ill. 23

Wanted—Man who thoroughly understands stamping of sheet metal ornaments. Address, stating experience and wages wanted, 1252 Manchester Ave., St. Louis, Mo. 23

Wanted—Experienced range salesmen to sell the Artistic Enameled Steel Ranges on commission. Must be firstclass salesmen with references Artistic Enameling Works, St. Louis, Mo. 23

Wanted—A good, all round tinner, sober, for inside and outside work, including pump work. Steady job for right man. J. A. Dunstan, Hollandale, Wis. 23

SITUATIONS WANTED.

Situation Wanted—By an experienced traveling salesman who up to Jan. 15 was employed for 12 years in the stove business. Address, "Years," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 25

Wanted—Position in tin or cornice shop or in hardware store. Iowa preferred. Willing to work. Box 267, Mt. Ayr, Ia. 25

Situation—By a sober and reliable man of 28 years' experience in country and city shops at tinning, plumbing, iron piping, steam fitting, wind mill and pump work, general jobbing and cotton mill work. Steady position, by the year. Wages, $10.00 per week. References, if required. Address, Tinsmith, Woodhull, N. Y. 25

Wanted—Steady job year round by an A1 sheet metal worker, capable of taking full charge of any size tinshop, would like job as working foreman. References or trial. Am married and a total abstainer. R. C. T., care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Ill. 24

Partner Wanted — Engagement as working partner, by a young, sober and reliable tinsmith, able to do any work that comes to a tinshop. Can do cornice work and cut patterns for same. Have a good working knowledge of plumbing and can wipe a good joint. Swedish spoken. Do not answer this unless you mean business. "Frank," care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 23

Situation Wanted—By a good, all-round, active young tinner, good on general job work. Temperate and reliable. Illinois preferred. Address "Tinner," care THE AMERICAN ARTISAN, 69 Dearborn St.. Chicago, Ill. 22

SPECIAL NOTICES.

FOR SALE.

A $15,000.00 stock of Pumps, Pipe, Steam, Plumbing, Engine and Boiler Supplies, Belting Packing, &c. The only stock of the kind in a town of 14,000 in Iowa, with a good established retail trade and growing jobbing business. No competition nearer than 100 miles. Trade can be extended largely. Will stand investigation. No idle enquiries answered. A manager can be secured who will invest some money in the business. Reason for selling, Sr. partner going West. Address:

"CYCLONE,"
Care of THE AMERICAN ARTISAN,
69 Dearborn St., Chicago. 25

Wanted Position

As manager or sales manager for stove foundry by a man having had varied experience, covering large territory; capable of managing a branch house; best of references can be furnished. Address "Box R" care 24

The American Artisan,
69 Dearborn Street, - CHICAGO, ILL.

STOVE JOBBERS ATTENTION.

You must have our All Sheet Steel Drum Oven. Has no rods or castings. Made of 27 Woods R. C. 3 thicknesses next to fire. Ovens 10½ by 17 inches. Will outlast 3 with cast heads. Can be sold cheap as the old style. Sample to jobbers, f. o. b., $1.50, net. Crated, 14 pounds. All ovens Oiled, Papered and Crated.

GRAVES SHEET METAL WORKS,
KANSAS CITY, MO.

NOTICE TO CONTRACTORS.

Notice is hereby given that the School Trustees of the City of Rensselaer, will receive bids up to 12 o'clock noon, Tuesday, June 18th, 1901, for the construction of a steam heating plant in the two school buildings in the City of Rensselaer, Indiana, according to the plans and specifications now on file with the Secretary of the School Board. The said Board reserves the right to reject any and all bids. DELOS THOMPSON,
Secretary of School Board.

HARDWARE BUSINESS FOR SALE

To close a partnership. In complete running order. Daily sales, $110 to $165; an exceptional opportunity; inspection invited. Address **Hardware Business**, care THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill.

A YOUNG, SUCCESSFUL FACTORY MANAGER,

Familiar with designing and construction of gas stoves and appliances, who has also had entire charge of factory, buying and selling, desires a change of position. Is at present employed as manager of one of the best gas stove firms in the country. Can give best of references, and leave present position on thirty days' notice. Able to design and construct any style of gas stove or range desired. Address "STOVE MANAGER," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 19

DIXON'S SILICA GRAPHITE PAINT

FOR TIN OR SHINGLE ROOFS AND IRON WORK. Tin roofs well painted have not required repainting for 10 to 15 years.
IT IS ABSOLUTELY WITHOUT AN EQUAL.
If you need any paint it will pay you to send for circular.
JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

SPECIAL NOTICES.

YOUNG MAN

With good connections in British Isles and Continental Europe wishes agencies for a few lines of American manufacture. Prompt attention. References. Address

MONTAGUE,
39 Paradise Street,
Liverpool, Eng.

Lackawanna Railroad

The Scenic Line
TO
New York City

Palatial Solid Vestibuled Trains
Superb Dining Cars
(Meals a la Carte)
Observation Cars **Latest Pullmans**
Elegant Day Coaches

3 THROUGH TRAINS DAILY from CHICAGO 3

Leaving Chicago	Arriving New York
10.35 a. m.	3.35 p. m. next day
2.30 p. m.	7.30 p. m. next day.
10.30 p. m.	7.10 a. m. 2d day.

Rates $18.00 First Class
$16.00 Second Class

CITY TICKET OFFICE: 103 Adams Street
GEO. A. CULLEN, Gen'l West'n Pass. Agt.
CHICAGO

50 Hardware Ads...	50c
50 Bicycle Ads.....	50c
50 Furnace Ads....	50c
50 Implement Ads..	50c
100 Steel Range Ads.	100c

Advertising Pays.
Get a copy of these ads which are the best used be us. They increase our trade and will yours. Catchy headlines ready for the printer. Stamps taken. Address
H. P. Townley, Terre Haute, Ind.

Good Hardware Advertisements,

THE AMERICAN ARTISAN, in its Advertising Department on June 8th, (Page 59) reproduced three samples of Townley's Hardware Ads. The critism of the Department on these ads was

"The display is unusually excellent and these advertisements are certain of being seen."

You can get **50** of these **Hardware Advertisements** (ready for use) **for 50 cents.** Address

H. P. Townley, Terre Haute, Ind.

Standard Chain Company.
Chain of all Kinds.
Pittsburgh, Pa.

We Own and Control Our Plant and Our Product is the Standard for Quality.

High Grade Roofing and Bright Plates "Star" ★ Ventilators, Metal Tiles, "Spanish" and Graduated, Solders, Babbitt and Type Metals, Bar Tin and Lead.

Manufacturers, Importers and Jobbers Galvanized and Black Sheet Iron, Sheet Copper, Sheet Brass, Sheet Zinc, Brass and Copper and Iron Wire, Brass and Copper Tubing and Rods.

Merchant & Co., Incorporated.

PHILADELPHIA, 517 Arch Street. NEW YORK, 245 Water Street. CHICAGO, 46 So. Clinton Street. BROOKLYN, 584 Flushing Avenue.

Eccentric Stove Kettles and Pots.

The peculiar construction of bottoms enables one to use these goods on either size hole designated by the number, say 6 and 7, a feature that is self recommending to all dealers. They can also be used on smaller top stoves by turning the narrow rims of bottoms together.

Blacklock Foundry,

South Pittsburg, Tenn.

GOODRICH LINE STEAMERS

TO MILWAUKEE

9:00 A. M. AND 9:00 P. M. DAILY.

TO Grand Rapids

GRAND HAVEN AND MUSKEGON,

7:45 P. M. DAILY.

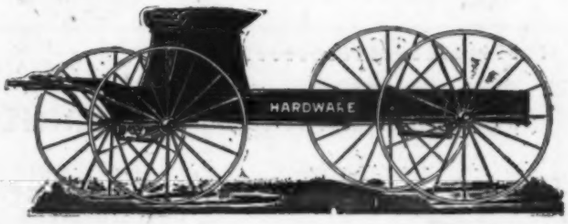
City Ticket Office
103 Adams St.

Docks Foot Michigan Ave.

Chicago.

A Special Hardware Wagon.

Low Down.
Short Turn.
High Wheels.
Saves the Heavy Lifting.
Makes Quick Delivery.
For Prices, Terms, &c., Address,



SHIPMAN. BRADT & CO., 305 North 3d St., DE KALB, ILLS

MICA

NOTICE TO Hardware Dealers and Stove Manufacturers.

We are operating our own mines and have a stock of beautiful **clear** solid **stove mica** and can make prompt shipments. As an **inducement** to get you to place your orders and contracts with us, we will **quote** you on application, **Special Prices.**

Blue Ridge Mining Co., MINERS OF MICA. GENERAL OFFICE: 1511 Monadnock Block, CHICAGO, ILL.

T. F. SCULLIN, MANUFACTURER.
INDIANAPOLIS, IND.
MFG'S PATENT ARTICLES.
HARDWARE SPECIALTIES & NOVELTIES OF ANY DESCRIPTION MADE TO ORDER.
PUNCHES & DIES.
CORRESPONDENCE SOLICITED.

ELECTRIC SPRAYER.

The ELECTRIC SPRAYER throws a very fine spray of any of the liquids and mixtures usually used for destroying insects, bugs, etc., and for keeping cattle free from flies during the summer weather.

The angle of the Plunger Barrel is made so as to keep the reservoir nearly level when using, and bring the funnel near the object to be sprayed.

The ELECTRIC SPRAYER is especially recommended for spraying all kinds of plants, bushes, vines, trees, interior of henneries, and also for spraying horses and cattle for keeping off the flies.

Made in Tin and Solid Copper.

Charles H. Childs & Co., 22 Layfette St., Utica, N. Y.

KEEP AT IT.

One step won't take you very far—
You've got to keep on walking;
One word won't tell folks who you are—
You've got to keep on talking.

One inch won't make you very tall—
You've got to keep on growing;
One little ad won't do it all—
You've got to keep them going.
—Joliet (Ill.) Republican.

Hundreds in use. Catalogue free.

SOLD ON FIVE DAYS' TRIAL

The Ertel Full Circle, All Wrought Steel

Gem Baler

The LIGHTEST, the STRONGEST, the CHEAPEST CONTINUOUS TRAVEL HAY AND STRAW PRESS in the market.

GEO. ERTEL CO., Established 1857. PATENTEES AND MANUFACTURERS **Quincy, Ill., U. S. A.**

WE LEAD WITH THE IMPROVED DEWEY STOCK WATERER.

STOCK FOUNTAIN CO., Succeeded by The B-B Mfg. Co.

Our Improved Dewey has worked itself into the hardware trade, and this season all hardware dealers will handle it.

Notice the word IMPROVED. Perfect in very detail. Thousands more sold than all others combined. Works winter and summer. Quick shipments, one price to all and cheaper than ever. We advertise direct and mail Hundreds of Thousands of letters to farmers, telling them to call upon their dealers. **We never sell direct, nor to catalogue houses.** We now control all Dewey patents. The 200,000 now in use are only samples considering the 5,500,000 farmers in the United States, and one-half buy from one to six. Farmers are just learning their usefulness. Order a dozen or so. Send us the names of a lot of farmers. We will write them for you. Anyhow write us for terms and circulars.

The B-B Mfg. Co.

DAVENPORT, IOWA.

A. W. LITCHFIELD,

LIBERTYVILLE, ILL.,

WRITES:

"Please take my ad. for a position, out of THE AMERICAN ARTISAN. It has done its good work."

Artificial Light Revolutionized!

Merkel's Simplicity Incandescent Vapor Light.

An absolutely safe light.

Highly polished brass with gold finished ornament. **WALL LAMPS** Absolutely cheaper than gas or electricity.

THIS lamp consumes about one pint of gasoline in six to eight hours, and with the improved mantle produces a soft, steady and very brilliant white light, from 80 to 100 candle power. The Merkel Simplicity Light will not smoke or discolor ceilings.

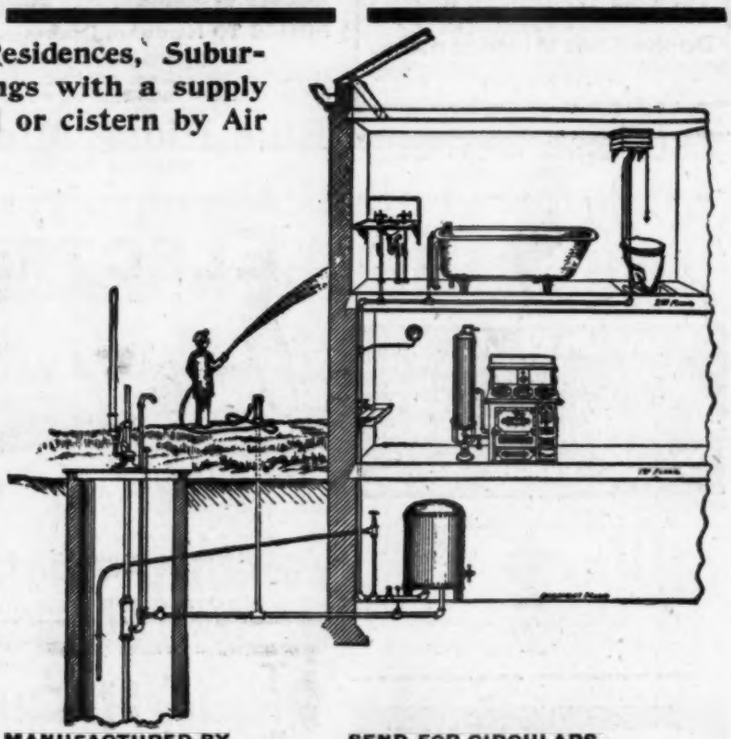
Send for catalogue. Manufactured and patented by

H. MERKEL,

513-515 Elm Street, ST. LOUIS.

Horigan Water Works

A system of furnishing Residences, Suburban Homes and other buildings with a supply of water from your own well or cistern by Air Compression.



REDUCES INSURANCE RATES.

Office of W. H. Horrum, Contractor and Builder and Manufacturer of Brick.
AUBURN, NEB., March 20, 1897.
Messrs. HORIGAN SUPPLY CO., St. Joseph, Mo.
Gentlemen—Your letter of inquiry asking if you may use my name for reference regarding your Water Works, would say that I can cheerfully endorse it. Myself and wife think it is one of the best house appliances of the present day. We have plenty of water for bath tub, basin and water closet; in fact, for any use that may be wanted. We are exceedingly well pleased with its operation. We are, as you are probably aware, using a hand pump which requires about fifteen minutes pumping, say twice a week. We would dislike very much to return to the old method of carrying water, to say nothing of the fact that we would have to discontinue the use of our plumbing fixtures. I endorse it without reserve.
Respectfully yours,
W. H. HORRUM.

CAN BE EASILY INSTALLED.

WRITE FOR PRICES. MANUFACTURED BY SEND FOR CIRCULARS.

Horigan Supply Co.,

ST. JOSEPH, MO.

O. C. Jamison, Homer, Ill., writes: "I FIND MY ADS. IN YOUR ESTIMABLE JOURNAL HAVE BROUGHT GOOD RETURNS."

BIG FOUR ROUTE

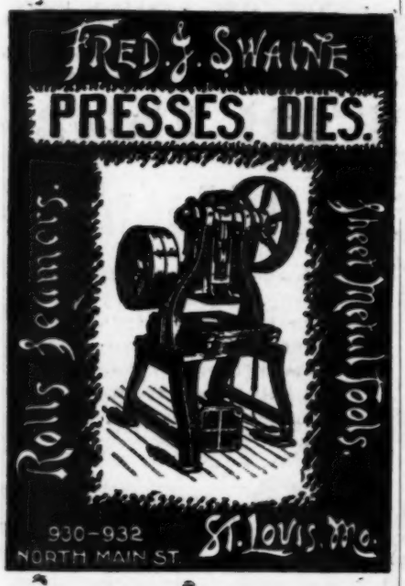
Chicago to { Indianapolis, Cincinnati, Louisville, the South and Southeast

Peoria, St. Louis, Indianapolis, Cincinnati, Louisville } To **New York** AND **The East**

W. P. DEPPE, A. G. P. & T. A. W. J. LYNCH, G. P. & T. A.

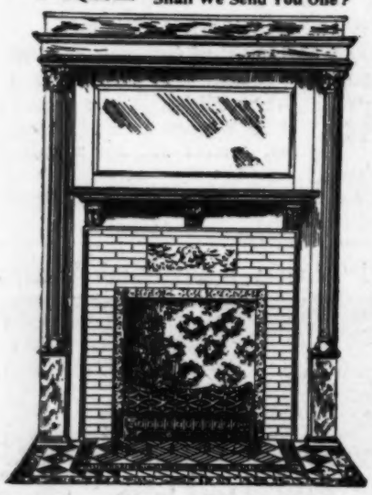
CINCINNATI.

J. C. TUCKER, G. N. A., 234 Clark St., Chicago



WOOD MANTELS.

FREE NEW CATALOG. Shall We Send You One?



Ironton Wood Mantel Co.,

Manufacturers for the Trade,

IRONTON, OHIO.

Diamond Adjustable Cook Stove Damper

Size of blade, 9 inches long, 3½ inches wide.

Will reduce to 5½ inches long, 2 inches wide.

PATENTED MARCH 14TH, 1893.

Should Be Carried in Stock by Every Stove Dealer.

This damper will fit all stoves having a turnover damper. -:- Can be put in without taking stove apart and by anyone easily. -:- The handle can be put in from either end, thus adapting it to any damper that may turn forward or backward. -:- Damper can be set at any point on handle. One damper fits all lengths and sizes. -:- Handle can be made any length.

Manufactured by **The Adams Company,** Dubuque, IOWA.

STAR HACK SAW BLADES

PERHAPS THERE IS no article made where quality tells more forcibly than it does in connection with Hack Saw Blades. Star Blades never flinch, but will do much more than the most exacting expect of them. They are uniform in quality, every one perfect. Be careful to see that the Blades you buy are stamped with a ★ No others genuine. They are kept by prominent Hardware and Supply dealers in all countries.

$ .55	.60	.65	.70	.85	.95	1.05	Per doz.
6	7	8	9	10	11	12	Inch.

MILLERS FALLS CO., No. 28 Warren St., New York,
And Millers Falls, Mass.

Sperry's Steam Kettles.

Made from very thick metal, without Stay Bolts; Joint packed in such a manner as to never need repacking. A little higher-priced than some, but they are safe and tight.

D. R. SPERRY & CO.,
HOLLOW-WARE FOUNDERS,
.....BATAVIA, ILL.

Elgin Style.

RAIL ROAD MILK CANS

These CANS are made of Heavy Cold Rolled Steel. The covers and necks are made seamless; hence there are no seams for sour milk to collect in. A heavy steel washer is soldered to both cover and neck, thus preventing the holes from tearing out. The handles are heavy and of malleable iron—made solid. The handles are riveted to the breast with two heavy rivets on each side of the handle. All cans are lettered to order with 1½ inch copper letters. ALL LEADING DEALERS HANDLE THIS CAN. Write us or prices.

Arthur A. Peterson & Co., Maple Park, Ill.

Manufacturers of Extra Heavy Dairy and Pieced Tinware.

The Plume & Atwood Mfg. Co.

196 Lake St., Chicago.

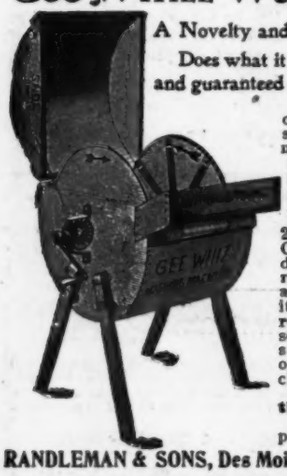
Manufacturers of Sheet Brass, Sheet Copper, Brass and Copper Rod and Wire. Brazed and Seamless Tubing, German Silver in Sheet, Wire, Rod and Tubing, Iron Lined Brass Cased Tubing.

JOS. P. BELL, Baraboo, Wis., Writes: "Please take my ad. out of your paper. If you don't I will have to hire a man to answer the letters I am receiving."

PLECKER'S CORRUGATED EXPANDING CONDUCTORS.
Made of Galvanized Iron in Ten-Foot Lengths without a Cross Seam. Will not burst when full of ice.

Clark, Quien & Morse, - Peoria, Ill.

Gee Whizz Washer



A Novelty and a Winner.
Does what it is intended and guaranteed to do.
Made without hoops or staves, will neither shrink, leak nor fall down. The labor saving washer of 20th Century. Our circular describes the reflex motion and tells why it whirls, rubs, slaps, squeezes and sucks the dirt out of the clothing.
You want the agency. Write for particulars to
RANDLEMAN & SONS, Des Moines, Iowa.

THE ORIGINAL BRAMMER Rotary Washer.

An especially well made and light running machine and GUARANTEED TO GIVE SATISFACTION.
A simple, powerful and durable movement. This very substantial tub is made from a select quality of Cypress lumber.
Made also in the detachable leg style, as well as square.
We manufacture the most complete and satisfactory line of Washers on the market. Send for illustrated catalogue.

BENBOW-BRAMMER MFG. CO.,
1007 N. 13th Street,
FACTORIES: St. Louis, Mo., Davenport, Ia. **ST. LOUIS, MO.**

CHICAGO, Milwaukee & St. Paul RAILWAY.

ELECTRIC LIGHTED TRAINS BETWEEN

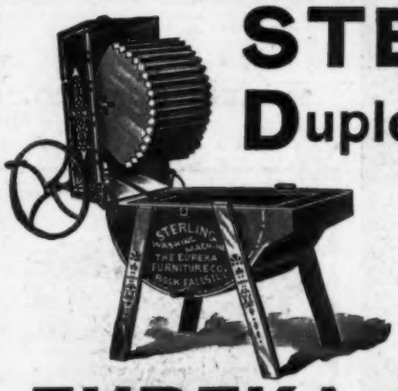
Chicago, Des Moines, Sioux City, Omaha,
Chicago, Milwaukee, St. Paul, Minneapolis,

EVERY DAY IN THE WEEK

All Coupon Ticket Agents sell tickets via Chicago, Milwaukee & St. Paul Ry.

F. A. MILLER, General Passenger Agent, CHICAGO, ILL.

STERLING Duplex Washer.



A genuine Washer that can always be relied on to clean clothes thoroughly, quickly and easily. It has won widespread popularity by its simplicity, ease of operation and durable construction. Please write for catalogue.

EUREKA CO. DEPT. H
ROCK FALLS, ILL.

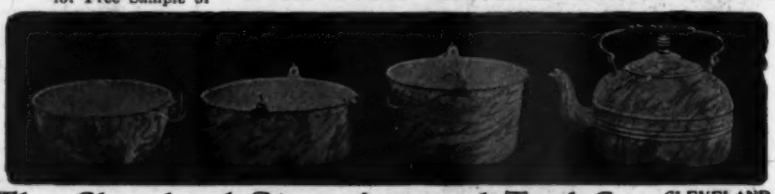
$25 ON 5 TON IS WHAT YOU CAN SAVE

We make all kinds of scales.
Write for prices
ALSO B. B. PUMPS AND WINDMILLS.
BECKMAN BROS., Des Moines, Iowa.

THE ORIGINAL H. F. Brammer Mfg. Comp'y

(Incorporated 1888) DAVENPORT, IOWA.
MANUFACTURERS OF
The Original Improved Brammer Washer.
The Original O. I. C. Pendulum Washer.
The Original O K Rotary Ball Gearing Washer.
With Gold And Copper Bronzed Hoops And Castings.
WE LEAD. Others imitate. The superiority of our Washers is too well known, and dealers will not be misled by similar machines.
Quotations and particulars will be sent on request.

Send 10c. in Stamps for Free Sample of **"Solid-Steel" Lava Enameled Ware.**



The Cleveland Stamping and Tool Co., CLEVELAND, OHIO.

CHAS. F. HARTMAN,
FOND DU LAC, WIS., writes:
"No hardware dealer or tinsmith should be without The American Artisan."

GEO. E. SCHILLER, MONTROSE, MO. writes: "Please discontinue my ad. in The American Artisan, for it has done its work."

Champion Stove Clay

The only Stove Lining made of crucible materials.
Packed in 2½ lb., 6 lb., and 10 lb. pasteboard boxes and also in bulk.
Order it from your jobber.
The best and most refractory lining made.

BRIDGEPORT CRUCIBLE CO.
BRIDGEPORT, CONN.

PATTERNS
UP TO DATE
Wood and Metal for Stoves, Ranges and Furnaces to order.
W. L. Mersfelder,
400 East Pearl, CINCINNATI, O.

THE GOBEILLE PATTERN CO
Cleveland O
DESIGNS AND PATTERNS FOR ORNAMENTAL CASTINGS

Repairs For all Stoves
Great Western Stove Repair Co.
MINNEAPOLIS, MINN.

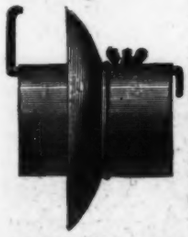
THE GEO. W. COPE STOVE PATTERN WORKS,
Randolph and Atwater Sts.
DETROIT, MICH.

Stove, Range and Furnace **REPAIRS**
OF ALL KINDS.
American Stove Repair Works,
186-188 West Seventh Street, ST. PAUL, MINN.

REPAIRS FOR ALL STOVES and RANGES.
A. G. Brauer, 316-318 North Third St., ST. LOUIS, MO.

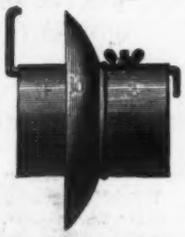
Experience. Correctness.
Acme Pattern Works
STOVE and HEATER
Patterns
AKRON, OHIO.
Promptness. Satisfaction.

Haylor's Hold Fast Stove Pipe



Is made 9⅓ inches long, each joint is ready, fitted with fastening device, and beautifully designed gilded collar, which measures 10½ inches in diameter for the six inch pipe, and 11½ inches in diameter for the seven inch pipe. They are packed a half dozen, complete, to each crate.

ORDER FROM YOUR JOBBER.



STUBER & KUCK, = Peoria, Ill.

John B. Ehrlich
Special Stove & Furnace **PATTERNS**
Perfect Work. Right Prices.
Indianapolis, Ind.

E. J. Schultz, Kewanee, Ill., writes:
"I can say that my advertisement in The American Artisan convinces me that I cannot afford to be without your paper."

Buckeye Decorative Home Paints are just what their name signifies—a paint designed for household use, for repainting old chairs, the lawn settee, the baby's wagon or sled, the interior of a room, or any place where a quick-drying, glossy surface is required. They are put up in convenient shape for both dealer and consumer.

Buckeye Paint & Varnish Co., Toledo, O.

IMPROVED

Young America Scale.

It is Made of Steel. White Tile Top. Tin or Brass Scoop. Brass Dial.

BEST IN THE WORLD.

A most beautiful and attractive scale for all purposes. Beautifully enameled, ornamented and striped. Weighs 20-pounds by ounces. Occupies but little space. Is light and easily moved. It can be regulated by turning the brass screw on top. It is always ready and easily understood. It is a convenient scale to use and has no weights that may be lost. You can look this one in the face to prove its accuracy without looking for weights. Every scale examined before leaving the factory and warranted correct.

MANUFACTURED BY

AMERICAN CUTLERY CO., CHICAGO, ILL.

Hardware Dealers Attention

We Manufacture

TELEPHONES

For your trade. Write us for catalogue. Headquarters for Wire Brackets, Pins, Cross Arms and All Supplies.

Farr Telephone and Const. Supply Co.

CHICAGO

The Jersey Cream Separator

Separates cream from milk in less than one hour. The most simple, practical and reliable separator on the market. A sure seller. Sold to dealers only. Write for prices and circular to

THE

Galesburg Cornice Wks.,

GALESBURG, ILL.

THE Peerless Flue Stopper

Steel wire springs instead of sheet iron stays.

Stays where you put it, and is absolutely soot and smoke proof.

Made either plain or decorated.

Send for miniature sample and prices.

Welling Manufacturing Co.,

Columbus, O.

Charles Hahn, Red Lodge, Mon., writes: "Please discontinue ad of 'tools wanted.' Much obliged. Had a dozen offers."

Tinners' Machinery & Supply Co.

20 Cliff Street, NEW YORK.

DIES OF ALL KINDS.

POWER, FOOT AND DROP **PRESSES**

Squaring and Circle Shears, Special Machinery, Second Hand Machinery.

Light Where You Need It.

The No. 22 Candle burns gasoline or kerosene, and makes a strong light. You'll need it while working in that cellar or attic. It is handy wherever light is wanted. Jobbers sell them at factory price.

CLAYTON & LAMBERT MFG. CO., DETROIT, MICH.

Price, polished brass, 75c.
" nickeled ... ..85c.
15 cts. extra if mailed.

The wire netting being almost invisible flies do not see it and its strike makes no breeze to blow them away, so they are easily and quickly killed.

The "King" Fly Killer

Size 5x18 Inches.

Patented July 9, 1900.

Kills flies without crushing; can be killed on finest fabrics without soiling them.

R. R. Montgomery & Co., DECATUR, ILL., U. S. A.

A drawing card for any merchant, for when once used party will never be without one. Sent to any address by mail for 15c. postage. Sample to trade free.

OMAHA

is the center of a spider's web of railroads radiating all over the great west. Its splendid shipping facilities enable us to give the western dealer a prompt service that is utterly beyond the power of less favorably situated jobbers. The enormous stock of goods we carry makes ours the western hardware depot *par excellence.* Try us and find out if we don't give better service, better prices, better variety than your present hardware jobber. Send us your name and we will be pleased to put you on our list for trade literature.

Lee-Glass-Andreesen Hardware Co.,
Omaha, Neb.

Why

don't you handle a line of ammunition with whose merits the shooting fraternity are familiar? The records made by Peter's Loaded Cartridges and Shells have made them a favorite with users of ammunition everywhere.

The Peters Cartridge Co.
Cincinnati and New York.
Hibbard, Spencer, Bartlett & Co.
Chicago.

LAWLER'S

Automatic
CELLAR DRAINER

The best and most successful machine for the purpose in the market.

LAWLER WATER FEED & DAMPER REGULATOR CO.
181-189 Mercer Street, New York City, or **Chicago Engineer Supply Co.,** 167-169 Lake Street, Chicago, Ill.

Enterprising Dealers should sell
STANDARD SELF MELTING WAX STRINGS FOR SEALING FRUIT CANS.
They are a great success and good sellers. Economical and sure. For descriptive circular and quantity price address,
C. C. FOUTS,
MIDDLETOWN, OHIO.

DECISION OF THE

United States Circuit Court

SUSTAINING

Lalance & Grosjean Mfg. Cos.'s Label.

This label was originated and is used by us to distinguish our Absolutely Pure AGATE NICKEL-STEEL WARE from other goods containing either Arsenic, Lead or Antimony in the enamel coating.

The Court, limiting its decision to the use of the label only, rules as follows, under date of April 15, 1901: "Complainants may take a preliminary injunction against the use of the labels, Exhibit G (of the **National Enameling and Stamping Co.**) or of any similar labels, which, by the collocation of size, colors, shape, spacing and lettering may present as close a resemblance to complainants' label Exhibit F (**see copy of label adjoining**) as do the said labels, Exhibit G (on Granite Ware)."

NOTICE TO THE TRADE.

The trade is hereby notified that any sales of the so-called "Granite Iron or Steel Ware" under labels like our rectangular labels referred to in above decision is a direct infringement of our rights as established by the above adjudication and entitles us to claim damages.

Notwithstanding reports to the contrary, **we are NOT members of any "Trust" or "Association,"** nor have we entered into any "Gentlemen's Agreement" regarding prices on Tinned, Galvanized, Japanned or Enameled Wares, or any other goods we manufacture.

Lalance & Grosjean Mfg. Co.

CHICAGO. NEW YORK. BOSTON.

This is a copy of the **LABEL**, which is printed on **BLUE PAPER**, and pasted on each piece of **GENUINE AGATE NICKEL-STEEL WARE** as a guarantee of **Absolute Purity.**

Analysis No. 72,330. NEW YORK, Dec. 7, 1896.

We have made a careful examination of a sample of "Agate Nickel Steel Ware" received from The Lalance & Grosjean Mfg. Co., Nov. 30, 1896.

The enamel coating is homogeneous, of extra thickness, and great purity.

It is *entirely free from arsenic, lead* and *antimony*—metals so often found in enameled goods.

Very respectfully,
STILLWELL & GLADDING,
Chemists to the New York Produce Exchange.

Pierre de P. Ricketts, E.M., Ph.D. John H. Banks, E.M., Ph.D.
Analysis No. 14,180. NEW YORK, May 5, 1897.
LALANCE & GROSJEAN MFG. CO.

GENTLEMEN:—As requested by you, we purchased in the open market a sample of "Agate Nickel Steel Ware" and have made a careful chemical analysis of the enamel covering of the same.

We find this enamel is *absolutely pure* and *free from Arsenic, Antimony, Lead* and *other substances injurious to health.* We can therefore recommend it for all culinary and drinking purposes. Respectfully yours,
RICKETTS & BANKS,
Chemists to the N. Y. Metal Exchange.

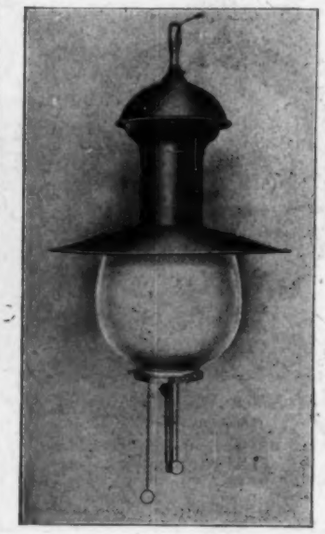
Guaranteed Double Coated and Absolutely Pure

Copyrighted.

Every Lamp Sold Sells Another.

NOW IS THE TIME TO APPLY FOR **The Agency** OF THE

Doran Lighting System



Remember the **FIRST** in the field will reap the harvest. Our improved Doran Lamp is the height of perfection in Hydro Carbon lamps. **DON'T** confound this with the common 100 candle power gasoline lamp. We have something entirely new, pronounced by **ALL** who have seen it the **BEST** thing they ever saw.

1250 Candle Power. **No fount to fill and break mantels.** **No shadow below, light all around.** **Turned up and down instantly with a chain.** **Simplicity (it will surprise you).** **Practically noiseless.**	A Few of its Good Points	**Handsome, looks exactly like the best electric arc lamp.** **Last, but not least, the cheapest system on the market, both in first cost and in operation, which is 1-6 of any other light of its power.**

We are appointing agents now for every town and city in the U. S. It will be profitable to you because we have **POSITIVELY** the best system of lighting ever invented. It has absolutely **NO FAULTS.** Every lamp guaranteed to be perfect and give satisfaction when received. As to our responsibility we refer to any bank or mercantile agency in Chicago.

Used for Interior and Street Lighting.

Acorn Brass Works,

19a Jefferson Street, CHICAGO.

SPECIAL NOTICE.—All infringements on this patent will be prosecuted to the full extent of the law.

Exclusive Territory will be granted.

The Real Rogers

NOT IN THE TRUST.

LOOK FOR THE INITIAL "TRADE MARKS"

Trade-Mark: SCROGERS CO.

Trade-Mark: SCROGERS BROS.

To distinguish our goods from other Rogers, we use our initials in monogram as our trade marks. Goods bearing these trade marks are guaranteed to strip as much silver as any Rogers brand on the market.

New Patterns of Superior Finish and Beautiful Designs.

The Simeon L. & George H. Rogers Co.,

P. O. Box 1205, HARTFORD, CONN.

FACTORIES: Hartford, Conn., Wallingford, Conn.

COAL HODS.
ELBOWS. STOVE PIPE.
DRIP PANS. ROAST PANS.
SPIDERS. GRIDDLES.
NATIONAL ACME FRY PANS.
COAL SHOVELS.
Send us your orders on any of the above goods, and they will be taken care of in good shape and at right prices.
NATIONAL ENAMELING AND STAMPING CO.
Branch Offices. New York Baltimore Chicago Milwaukee St. Louis

HE WILL FIND THE **GOOD THINGS** HE IS LOOKING FOR WHEN HE GETS HIS GLASS FOCUSED ON THE **GREEN BOOK** OF HARDWARE SPECIALTIES.

Smith & Hemenway Co., 296 Broadway, N. Y.

DON'T READ THIS

Unless you are interested in down-to-the-minute advertising. Have had over 15 years' practical advertising experience with some of Chicago's most successful Manufacturers, Jobbers and Retailers. Am at present engaged with a very large advertiser, but have time to spare and will do a limited amount of work for any one who desires first-class ADVERTISING SERVICE at very reasonable rates. Write for further Particulars.

FRANK. E. RUBOVITS,
233 Fifth Avenue, - - Chicago, Ill.

Stanley Rule and Level Co.

IMPROVED CARPENTERS'.TOOLS Sold by All Hardware Dealers

NEW BRITAIN, CONN.

THE "DISSTON SAW" WILL DO MORE WORK WITH LESS EXERTION AND HOLD ITS CUTTING EDGE LONGER THAN ANY OTHER BRAND OF SAW.

Fully Warranted as to Material and Manufacture.

For Additional Information Send a Postal For Our Pamphlet "Practical Hints To Mechanics."

Henry Disston & Sons, Inc.,
Keystone Saw Tool Steel & File Works.
Philadelphia, Penna.

Measuring Tapes

Steel, Metallic, Linen, etc. Our Goods are Recognized as the Best. Tinners' Rules, Magic Pattern Rules, etc. Send for Catalogue and Mention The American Artisan.

Lufkin Rule Co.

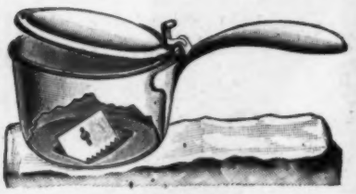
SAGINAW, MICH.

"Enterprise" Ice Shredders

TINNED

FOR SHAVING ICE COARSE OR FINE

Invaluable when Icing Fruits, Drinks, Oysters and Clams on half shell, Celery, Radishes, Sliced Tomatoes, Tea, etc.



No. 33. Tinned $6.00 per doz.
No. 34. Nickeled 15.00 " "

At all Hardware, House Furnishing and Department Stores

No. 23. Tinned $1.25 per doz.

The Enterprise Manufacturing Co. of Pa.
Philadelphia, Pa., U. S. A.

BARGAINS

Our business consists in the purchase of Stocks of General Merchandise at Sheriffs', Receivers' and various other forced sales.

Our purchase of this brand new Galvanized Steel Wire Netting, is probably the largest ever made by any one individual concern. **Over twenty car loads** are already in our ware houses and more coming.

THIS PURCHASE REPRESENT GOODS OF STANDARD MAKE ONLY.

Put UP In Bales 150 Feet Long.

Mesh In.	No. of Wire	Width in Stock, In.hes.	List Price Per Sq. Ft.
2	20	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84	2⅛c
2	19	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96	2½c
2	18	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84	3½c
2	17	12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72	4½c
2	16	6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78	5½c
2	15	12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 84	7½c
2	14	12, 18, 24, 30, 36, 42, 48, 54, 60, 72, 84	9½c
1½	20	12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72	8c
1½	19	12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84	3½c
1½	18	12, 18, 24, 30, 36, 42, 48, 60, 72, 78	4½c
1½	17	12, 18, 24, 30, 36, 42, 48, 60, 66, 72	7½c
1½	16	12, 18, 24, 30, 36, 42, 48, 54, 60, 72	8½c
1	20	6, 12, 18, 24, 30, 36, 48, 54, 60, 66, 72, 78, 84, 96	5½c
1	19	12, 18, 24, 30, 36, 42, 48, 60, 72, 84, 96	6½c
1	18	12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78	7½c

Our discount from above list is 85—10 and 5 per cent net cash, 10 days. F. O. B. Chicago, subject to prompt acceptance.

A Combination Monkey Wrench

We bought 5,000 of them at manufacturers' sale. They are made of all malleable iron; length, 9 in. The cut speaks for itself. It is made of 3 pieces. Has a hammer head. **Per dozen net cash, 90c.**

A PURCHASE OF WIRE NAILS.

We have in stock 2,500 kegs of new wire nails. They are miscellaneous sizes only—that is, instead of being labeled 3d, 4d, etc., they are marked by length and number of wire, as shown in this list:

Wire Brads.

Item No.	Length, inches.	Wire Gauge.	Quan. lbs.	Item No.	Length, inches.	Wire Gauge.	Quan. lbs.
105	4	12	400	113	3¼	11½	200
106	1	3-16	100	114	1¾	12	100
107	4½	6	57	115	⅜	13	100
108	¾	9	100	116	3½	14	400
109	3⅜	9	100	117	⅜	15	143
110	2¾	10	100	118	¾	15	33
111	4½	10	100	119	1½	19	5
112	2¾	11	100	120	1⅛	14	107

Smooth C. S. Checked Heads.

Item No.	Length, Inches.	Wire Gauge.	Quan. lbs.	Item No.	Length, Inches.	Wire Gauge.	Quan. lbs.
121	1½	3	12	125	2	16	11
122	3	6	77	126	1¼	17	15
123	1⅜	9	141	127	2	6	200
124	⅜	14	100				

Wire Nails. No Heads.

Item No.	Length, inches.	Wire Gauge.	Quan. lbs.	Item No.	Length, iuches.	Wire Gauge.	Quan. lbs.
128	2	10	2250	129	2⅛	8	1220

Oval Head Wire Nails. Smooth.

Item No.	Len. In.	Wire Gauge.	Quan. lbs.	Item No.	Len. In.	Wire Gauge.	Quan. lbs.
139	1¾	5	200	153	1¾	10	100
140	4	5	5400	154	2	9	100
141	1¼	6	100	155	2½	8	800
142	3	6	100	156	2½	0	100
143	2	8	300	157	4	6	400
144	2¼	8	1000	158	4	5	175
145	1¾	9	415	159	5	5	100
146	2	11¼	50	160	5	4	1200
147	1⅛	10	400	161	6	4	100
148	1½	12	300	162	2	8½	400
149	2¼	12	100	163	2	9½	100
150	⅜	17	200	164	2	11½	100
151	¾	10	200	165	6	3	792
152	1¾	9	100	166	7	1	100

Wire Spikes.

Item No.	Length, Inches.	Quan. lbs.	Item No.	Length, Inches.	Quan. lbs.
130	10	6	135	3	900
131	3¼	142	136	8	100
132	7	146	137	5¼	56
133	4	280	138	6	65
134	4½	600			

Car Nails.

Item No.	Len. In.	Wire Gauge.	Quan. lbs.	Item No.	Len. In.	Wire Gauge.	Quan. lbs.
166½	1¼	7	200	175	1⅞	11	4646
167	2	10	100	176	2½	6	4200
168	2	9	6000	177	2	6	100
169	2	11	84	178	1⅛	10	1540
170	2	5	1400	179	1⅛	8	2542
171	1¼	10	200	180	1½	9	71
172	3	12	100	181	1¼	9	33
173	3¼	6	300	182	2	7	16
174	3	10	100				

Slating Wire Nails.

Item No.	Len. In.	Wire Gauge.	Quan. lbs.	Item No.	Len. In.	Wire Gauge.	Quan. lbs.
183	1¼	9	5114	185	1	10	100
184	⅞	10	200	186	1½	10	100

Hinge Wire Nails.

Item No.	Len. In.	Wire Gauge.	Quan. lbs.	Item No.	Len. In.	Wire Gauge.	Quan. lbs.
187	1¼	⅜	322	191	3½	00	200
188	2	5	100	192	4	0	80
189	3⅛	4	100	193	5	5/16	287
190	3½	1	100				

Cone Head Wire Nails.

Item	Len. In.	Wire Gauge.	Quan. lbs.	Item No.	Len. In.	Wire Gauge.	Quan. lbs.
	2½	5	100	196	2⅛	8	100
No.	1½	9	400	197	8		600

OUR NET CASH PRICE PER 100 LBS., ANY SIZE $2.05

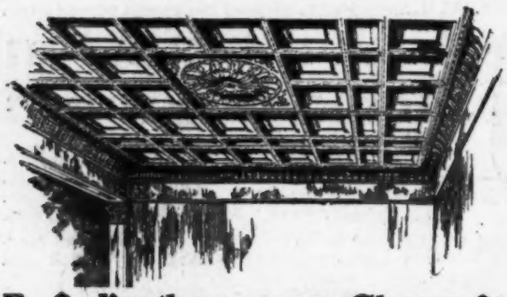
This list represents about one-tenth of entire stock. Write for complete list.

Our Catalogue No. 70 Contains 250 pages of Merchandise at Extremely Low Prices.

Chicago House Wrecking Co.

West 35th and Iron St., CHICAGO, ILL.

If
You Want
The Latest Designs,
and
Best Fitting
METAL CEILINGS
On The Market,
We Make Them.
Also
Cornice, Skylights,
Eaves Trough, Conductor Pipe.
J. H. ELLER & CO.,
Canton, Ohio.



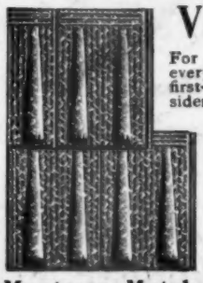
Hardware Dealers
Can Handle
Northrop's Stamped
Steel Ceilings
and do well for their customers and themselves. Send for catalogue—give diagram and description of room for an estimate and we will do the rest.
H. S. Northrop, 53 Cherry Street, New York.

Berger's Gutter Hangers
Pipe Fasteners
The Leading Hangers and Fasteners Everywhere.
Immense Stock and Variety.
Ask for Sample and Catalog of our Tinners' and Roofers' Supplies.
Berger Bros. Co., mfrs.
231-237 Arch St.
PHILADELPHIA.

Gerock Bros. Mfg. Co.

1252 MANCHESTER AVE.,
ST. LOUIS, MO.
Zinc and Copper
Ornaments. Steel
Ceilings. Skylights
and Ventilators.
Catalogue on application.

THE QUICK SHIPPERS
We Manufacture
Cornices,
Skylights,
Finials,
Ridging,
W. J. BURTON & CO.
DETROIT, MICH.



VICTOR
For public buildings of every character where first-class roofing is a consideration, our galvanized
VICTOR SHINGLE
is unequalled.
Deeply embossed.
Presents attractive appearance.
Telescope Side Lock.
Catalogue fully describes them.
Montross Metal Shingle Co.,
CAMDEN, N. J.

The "Centennial"
Rain-Water Cut-Off.

The strongest, most durable and cheapest CUT-OFF on the market.
The only single Cut-off made to fit CORRUGATED and Plain Pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.
Patent applied for. Manufactured only by
COONEY & GEIGER,
19 & 21 E. South St., INDIANAPOLIS, IND.

Bradner Smith & Co.
Paper Makers,
CHICAGO.
BUILDING,
WRAPPING,
WRITING,
NEWS,
BOOK
Paper
Send for Catalogue.

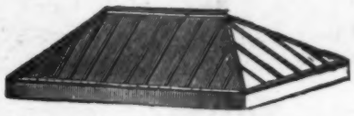
Crying to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.

EAVES TROUGH CONDUCTOR PIPE AND ELBOWS.

ROOFING, ROLL AND CAP STANDING SEAM, CORRUGATED, PLAIN, CRIMPED OR ROCK FACED BRICK. CORNICES, SKYLIGHTS, FINIALS, VENTILATORS, CUT-OFFS, CRESTINGS, &C.

La Crosse Steel Roofing and Corrugating Co., LA CROSSE, WISCONSIN

JAMES A. MILLER & BRO.
129 So. Clinton St.,
CHICAGO.
Correspondence Solicited.



Corrugated and other IRON ROOFINGS.
SKYLIGHTS,
CORNICES,
CONDUCTOR PIPES,
GUTTERS, ETC.

Central Tin Plating Works.

Tin Platers on Brass, Copper, Wrought Iron and Steel. We re-tin Copper, Sheet Iron any thickness; also Wrought Iron Pipe any length; Ice Cream Cans, Baby Carriage Springs, Wheels, Axles; in fact, we can re-tin anything. We do the largest and finest work in the United States. We solicit your trade.

C. Doering & Sons,
Tel. Monroe 921. 227-229 West Lake St., CHICAGO.

CLASSIFIED METAL CEILINGS

'Tis a pleasant subject, and a profitable one, too. Has it ever been presented to you? We should like to take it up with you. It means money. Catalogue free.

Illinois Roofing & Supply Co.,
23 Lake Street, Chicago.

"Sampson Brand" **Pure Asphalt Roofing.**
Never Dries Out or Cracks.
Planet Brand Tarred Ready Roofing, Slaters' Felt, Building Papers, Roofing Cements, Paints, Etc.
Write us for prices. **J. L. Perkins & Co.,** 241 Lake St. CHICAGO.

Greig Brothers, Mitchell, Iowa, write: — "Please discontinue ad for Tinner, we have had applications from Ohio to Northern Wis."

Garry Iron and Steel Roofing Co.

Roll Roofing.
Corrugated Iron.
Metal Shingles.
Clap-boards.
Siding.
Steel Bricks.
Window Casings.
Fire-Proof Shutters.
Eave Trough.
Conductor Pipe.
Elbows.
Cornice.
Skylights.
Finials.

Cor. Coe and Lake Streets,
Cleveland, Ohio.

GRAY'S ELBOW PATTERNS.

From 1" to 40" in diameter in two sets. Set (a). From 1" to 20" in 2-3 and 4 pieces, made on blue print paper, post paid on receipt of $1.00. Set (b). From 20" to 40" in 5-6-7 and 8 pieces on blue print paper, post paid on receipt of $1.50 or both sets, 144 patterns, for $2.00. Full instructions with each set.

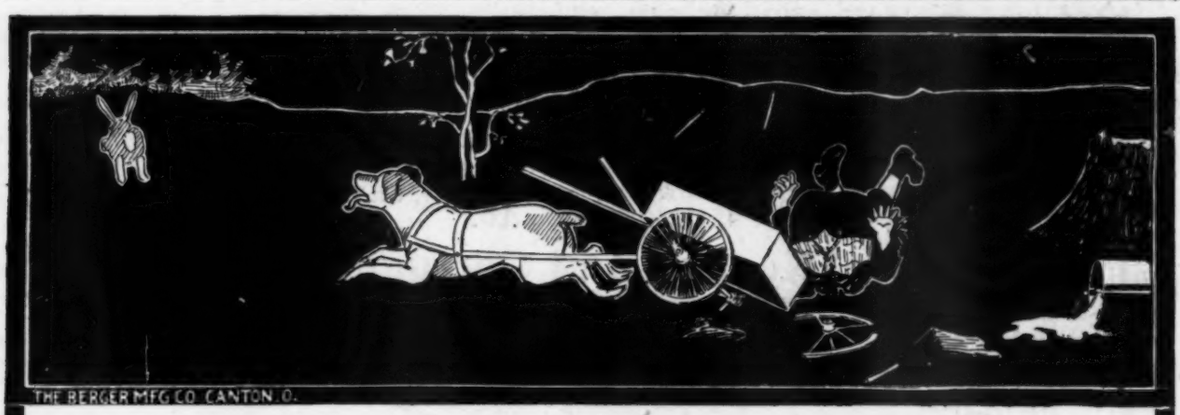
C. L. GRAY,
140-148 Ferris St., Galesburg, Ill.

S. C. SMITH, President — WM. BRAY, Treasurer — B. W. RIBBLE, Secretary
The East Bangor Consolidated Slate Co.
.... MANUFACTURERS OF ....
Laundry Tubs, Burial Cases, Urinal Stalls, Tiles, Genuine Bangor Roofing Slate and General Structural Slate.
EAST BANGOR, PENNSYLVANIA.

Auld & Conger
CLEVELAND, O.
Manufacturers and Dealers.

SLATE
Genuine BANGOR UNION
Mammoth Vein Sea Green
Purple and Variegated
Unfading Green
Red and Maine
Penna. Black
Peach Bottom

WRITE FOR PRICES.



Accidents Sometimes Happen.

There is nothing accidental, however, about the success of Berger's "Classik" Metal Ceilings.

Berger's "Classik" Metal Ceilings

Are designed on the correct artistic basis.
They are high art ceilings and appeal to high grade trade.
They are handsome in appearance, harmonious in style and stamped with a clearness which fully brings out the detail.
They combine the mechanical excellence of sheet metal with the artistic effect of plastic relief.
A room finished with Berger's "Classik" Metal Ceilings stays finished.
Both you and your customers would like them.
Write to-day for handsome catalogue and full particulars.

The Berger Mfg. Co., Canton, Ohio.

WESTERN BRANCH: 1428 North Broadway, St. Louis, Mo.
NEW ENGLAND BRANCH: 167 Federal Street, Boston, Mass.
NEW YORK OFFICE: 210 East 23d Street, New York, N. Y.
PHILADELPHIA OFFICE; 1013 Arch Street, Philadelphia, Pa.

SPECIALTIES: Ceilings, Roofing, Siding, Eave Trough, Conductor Pipe, Hangers, Etc., Etc.

American Tin Plate Company

MANUFACTURERS . . . . .

Tin Plate
Terne Plate
. . . and . . .
Black Plate

GENERAL OFFICES: Battery Park Bldg. New York.

BEAUTIFUL

Canton Steel Ceilings are beautiful. They attract attention wherever you see them. They are easy sellers and you can make a good profit on them.

We are headquarters for Cornice, Skylights, Fireproof Doors and Shutters.

SEND FOR CATALOGUE OF DESIGNS AND PRICES.

THE CANTON STEEL ROOFING COMPANY,
CANTON, OHIO.

Iron Cut Nails.

Made of

IRON.

Better than Steel-Cut or Wire Nails.

Send for Prices.

Old Dominion Iron & Nail Works

Arthur B. Clarke, Prest. Richmond, Va.

SEVEN DEVELOPED GOLD MINES.

60 ACRES OF GOLD ORE

at Cripple Creek, Colorado.

This property is Estimated to be now Worth More than $10,000 per Acre and will be Worth over One Hundred Thousand Dollars per Acre, with Proper Development. **CAPITAL STOCK $1 000,000. DIVIDED INTO SHARES OF $1.00 EACH, FULL PAID AND NON-ASSESSABLE. The Arena Company offers 50,000 Shares at 50 cents each in a property that is worth over $600,000.** For the purpose of raising money to purchase the necessary machinery to make the mines produce daily fully **Three Thousand Dollars in Gold**, thus enriching every individual shareholder according to the shares he holds. **YOU CAN BUY ANY NUMBER OF SHARES YOU WISH**, and make more money than can be made in any other line of investment. The gold ore is in these seven developed mines. There are three thousand feet of ore in a vein, and these veins are true mother veins, held within walls of granite, placed there by nature. The Company has already developed this property to demonstrate that it is one of the largest gold properties of the Cripple Creek District which is the greatest gold producing camp on earth, its output last year aggregating **$24,000,000, or nearly double the amount produced in the whole State of California. At 50 cents per Share the Company is giving you a discount of 10 cents per Share to start with, making 20 cents on the dollar.** The reports on these mines, made by one of the best mining engineers in the State, succinctly describe these improvements.

The Arena Gold Mining and Milling Co. :: 501 Equitable Building, DENVER, COLORADO.

CHAS. E. MARIS, Williamsburg, Ia., WRITES: "THE AMERICAN ARTISAN certainly has a large circulation from the inquiries I received."

Tools for Sheet Metals

Niagara Snips.

Tinsmiths' / Roofers' / Cornice Makers' } TOOLS

SHEARS, PRESSES and DIES, PUNCHES, ROLLS

Made by

Niagara Machine and Tool Works

BUFFALO, N. Y.

Send for Catalogue P

WRITE US FOR PRICES ON

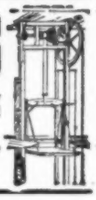
Presses, Dies or Special Machinery.

Dies and Machine Forgings one of our Specialties.

THE DANIELSON MACHINE & TOOL CO.

183 Lake St., Cleveland, O.

ELEVATORS



Improved, Quick and Easy Rising Steam and Hand Power.

KIMBALL BROS., 1061 9th St., Council Bluffs, Ia.

Satisfied

When a man gets the bill for his Cortright Metal Roofing he is satisfied, because the roof is pretty; it's cheap; it's a sure protection, and these are good reasons.

Cortright Metal Roofing Co.

50 N. 23rd St., PHILADELPHIA. 134 Van Buren St., CHICAGO.

HOMESEEKER EXCURSIONS

On First and Third Tuesdays in each month to

VIRGINIA,

Via NORFOLK & WESTERN RAILWAY.

For all information as to RATES and TICKETS and for LAND PAMPHLETS and descriptive matter, address ALLEN HULL, T. P. Agt., Columbus, Ohio.

Geo. W. Brown, Jr., Hillsboro, Ill., writes: "You may kindly discontinue our WANTED TINNER adv. that you have so kindly carried for us the past three issues. I have received replies from Vermont to Dakota, and think that we have secured a good man."

Pan-American Route

Between **CLEVELAND** and **BUFFALO.**

STEAMERS CITY OF BUFFALO AND CITY OF ERIE.

Both together being without doubt, in all respects, the finest and fastest that are run in the interest of the traveling public in the United States.

TIME CARD—DAILY—APRIL 15th to DEC. 1st.

Leave Cleveland 8 p. m. Arrive Buffalo 6:30 a. m. | Leave Buffalo 8 p. m. Arrive Cleveland 6:30 a. m.

ADDITIONAL SERVICE DURING JULY AND AUGUST DAILY EXCEPT SUNDAY.

Leave Cleveland	8:00 a. m.	Leave Buffalo	8:00 a. m.
Arrive Buffalo	6:00 p. m.	Arrive Cleveland	6:00 p. m.

Leave Cleveland Tuesdays, Thursdays and Saturdays 5 p. m. Arrive Buffalo 5:30 a. m.

Leave Buffalo Mondays, Wednesdays and Fridays 5 p. m. Arrive Cleveland 5:30 a. m.

All Central Standard Time. Orchestra Accompanies Each Steamer.

Connections made at Buffalo with trains for all Eastern and Canadian points, at Cleveland for Detroit and all points West and Southwest.

Ask ticket agents for tickets via C. & B. Line. Send four cents for illustrated pamphlet. SPECIAL LOW RATES CLEVELAND TO BUFFALO AND NIAGARA FALLS EVERY SATURDAY NIGHT, ALSO BUFFALO TO CLEVELAND.

W. F. HERMAN, General Passenger Agent, Cleveland, O.

C. R. SIPES, Arkansas City, Ark., writes: "We could hardly keep house without The American Artisan."

Don't Be Deceived but insist on

McClure's Genuine Charcoal Iron Redipped Roofing Tin.

McCLURE & CO.,
Manufacturers of Tin Plate,

PITTSBURGH, PA., 211, 213 and 215 Second Ave.
PHILADELPHIA, PA., 115 North 7th Street.

STEVENS

Fire Arms are Standard

They are the Most Profitable Line to Handle.
Ready Sellers and Always Give Satisfaction.

Our Catalogue is of interest to both dealer and user. All leading jobbers handle our complete line.

J. Stevens Arms & Tool Co.,
No. 245 BROADWAY,
CHICOPEE FALLS, MASS.

Figures and Guesses

Some things we can guess at—some things we can figure out to an accurate conclusion. We figured that there was going to be an unusual demand for iron and steel products this spring and that the factories could not keep up with orders.

We figured that if we laid in a big stock good and early, we could supply your demands when others could not.

If you need **Galvanized Sheets, Gutter, Conductor,** and **Ridge Roll, the Best Old Style Plates,** or some cheaper **Terne Plates, Coke Plates** or **Charcoal Brights,** send us your orders. The prices are right.

J. M. & L. A. OSBORN,
CLEVELAND. COLUMBUS.

—IF—
it's as good as the
Taylor "Old Style"
it will cost you
MORE

Two Gold Medals AT THE Paris Exposition

WERE AWARDED ATKINS' SAWS.

We Are Headquarters for **Saws of All Kinds,** Saw Tools and Saw Mill Specialties.

E. C. Atkins & Co. Inc.

INDIANAPOLIS, IND.

BRANCH HOUSES: Memphis. Minneapolis. Atlanta. Portland, Ore.